

# Владимир Феодосьевич Ануфриенко



(02.03.1936 — 20.03.2016)

Ушел из жизни профессор, ведущий научный сотрудник Института катализа им. Г.К. Борескова СО РАН Владимир Феодосьевич Ануфриенко.

Владимир Феодосьевич Ануфриенко окончил радиофизический факультет Харьковского университета (Факультет радиофизики, биомедицинской электроники и компьютерных систем ХНУ им. В.Н. Каразина) в 1958 году. Дипломную работу по ЭПР спектроскопии выполнял в лаборатории молекулярной спектроскопии Карповского института под руководством Н.И. Померанцева. В период выполнения дипломной работы, по совету научного руководителя, он познакомился с Георгием Константиновичем Боресковым, который работал в том же здании, но в то время занимался организацией Института катализа СО АН СССР в Новосибирске. Во время знакомства Г.К. Боресков обрисовал каталитические задачи, в которых метод ЭПР мог быть наиболее эффективным, одобрил планы В.Ф. освоить технику ЭПР-спектроскопии и научиться создавать приборы ЭПР, а также заверил, что после успешной защиты дипломной работы В.Ф. будет принят на работу в Институт катализа. Обещание было выполнено, и по окончании учебы Владимир Феодосьевич начал работать в Институте катализа. В Новосибирске в 1966 году он защитил кандидатскую диссертацию «Изучение ковалентной связи в хелатных комплексах меди методом ЭПР».

Частично результаты, полученные В.Ф. Ануфриенко, не были прямо связаны с конкретными работами в Институте катализа – некоторые исследования выполнялись им по собственной инициативе (хелатные комплексы, угли и коксы, аддуктообразование, упорядочивание ионов). Другая часть исследований касалась непосредственно катализаторов и была проведена совместно с многочисленными учениками Г.К. Борескова (Т.М. Юрьева, К.Г. Ионе, Т.В. Андрушкевич, В.Д. Соколовский, Ю.И. Ермаков и др.). Например, вместе с Т.В. Андрушкевич было обнаружено, что при разложении тривиального для катализаторов парамолибдата аммония (известный способ получения молибденовых катализаторов) наблюдается множество парамагнитных центров радикальной и нерадикальной природы. В 1976 году в работе с Т.М. Юрьевой были обнаружены ЭПР димеры меди с разными состояниями в кубических структурах. Эта статья была представлена Боресковым в "Доклады АН СССР". В 1980 г. известный физик-теоретик Д.И. Хомский (Москва, ФИАН) строго

предсказал существование этих димеров в таких кубических структурах, не предполагая, что они уже описаны в 1976 г. Теперь это признанное первое наблюдение упорядочения ионов меди вследствие кооперативного эффекта Яна-Таллера. В сотрудничестве с Т.М. Юрьевой были изучены спектры ЭПР более 400 образцов катализаторов CuO-MgO.

Еще в 1961 г. с подачи Г.К. Борескова на примере взаимодействия кислорода с парамагнитными центрами углей и коксов В.Ф. Ануфриенко заинтересовался проблемой «кислородного эффекта». В то время объяснить и понять природу наблюдаемого «кислородного эффекта» не удавалось. Основные исследования, связанные с этой темой, В.Ф. Ануфриенко начал позднее, когда сначала на Западе, а потом в Москве (В.Б. Казанский) были получены результаты работ по ЭПР адсорбированного кислорода. Понимание «кислородного эффекта» появилось только в 1980 г., в ходе работы над третьей (на эту тему) кандидатской диссертацией учеников В.Н. Ануфриенко (Р.Г. Равилов, 1980). Работы по ЭПР углей и коксов в то время не вызывали большого интереса в Институте катализа, и нашли применение только через 20 лет - при решении проблем дезактивации цеолитов - теперь популярных катализаторов переработки углеводородов.

Несмотря на то, что Владимир Феодосьевич всю жизнь проработал в Институте катализа, он всегда считал себя физиком, как он говорил о себе, "вышел" из физики, далеко от физики не отходил, хотя и нашел для себя много интересного в работе с катализаторами и вообще в работе по катализу. Первая докторская диссертация Владимира Феодосьевича «Радиоспектроскопическое исследование слабых возмущений парамагнитных систем» (1979) была защищена по физико-математическим наукам, а в 1991, в форме научного доклада, он защитил докторскую диссертацию «Парамагнитные зонды при исследовании упорядоченных структур в гетерогенных катализаторах» по химическим наукам.

Использованы воспоминания: [В.Ф. АНУФРИЕНКО «Vivat academia! Vivat professore! Per aspera ad astra!»](#) в книге «Георгий Константинович Боресков. Книга воспоминаний», серия «Наука Сибири в лицах», 2е издание переработанное и дополненное, Новосибирск: Изд-во СО РАН, 2007, с. 138-143

## Основные статьи

1. STROGANOVA, EA; ANUFRIENKO, VF; LARINA, TV; VASENIN, NT; LEBEDEV, YA; PARMON, VN. EFFECT OF SORPTION CONDITIONS ON THE STATE OF COPPER(II) IONS IN THE PHASE OF AN-31 ION EXCHANGE RESIN, ACCORDING TO DATA FROM ESR AND UV-VIS DIFFUSE REFLECTANCE SPECTROSCOPY  
RUSSIAN JOURNAL OF PHYSICAL CHEMISTRY A 91(8), 1548-1556 (2017)
2. BIKTAGIROV, VV; ANUFRIENKO, VF; BIKTAGIROVA, EV. OBSERVING THE ORBITAL ORDERING OF TI(III) IONS IN CATALYSTS FOR THE POLYMERIZATION OF DIENE COMPOUNDS  
RUSSIAN JOURNAL OF PHYSICAL CHEMISTRY A 90(2), 282-285 (2016)
3. MALYKHIN, SE; ANUFRIENKO, VF; HENSEN, EJM; KUZNETSOVA, EV; LARINA, TV; ZHIDOMIROV, GM. DISTORTION OF THE TETRAHEDRAL COORDINATION OF FE(III) IONS STABILIZED IN ZSM-5 ZEOLITE FRAMEWORK (VOL 48, PG 855, 2007)  
JOURNAL OF STRUCTURAL CHEMISTRY 56(4), 811-811 (2015)
4. ANUFRIENKO, VF; VASENIN, NT; MALYKHIN, SE; ISMAGILOV, ZR; PARMON, VN. THE NATURE OF APPEARANCE OF EPR SPECTRA UPON TRINITROBENZENE ADSORPTION ONTO DEHYDRATED ALUMINA  
DOKLADY AKADEMII NAUK 461, 69-72 (2015)

5. SHUTILOV, RA; ZENKOVETS, GA; GAVRILOV, VY; ANUFRIENKO, VF; LARINA, TV; VASENIN, NT.  
STATE OF THE COPPER-CONTAINING COMPONENT AND THE CATALYTIC PROPERTIES OF CU/ZSM-5  
IN SELECTIVE NO REDUCTION WITH PROPANE  
KINETICS AND CATALYSIS 55(5), 620-629 (2014)
6. VASENIN, NT; ANUFRIENKO, VF; SHUTILOV, RA; ZENKOVETS, GA; SHUBIN, AA; GAVRILOV, VY;  
PARMON, VN.  
ORBITAL ORDERING OF CU<sup>2+</sup> IONS IN CONCENTRATED AQUEOUS AMMONIA SOLUTIONS OF  
COPPER CHLORIDE, SULFATE, AND ACETATE AS PROBED BY ESR  
DOKLADY AKADEMII NAUK 450, 103-106 (2013)
7. YASHNIK, SA; SALNIKOV, AV; VASENIN, NT; ANUFRIENKO, VF; ISMAGILOV, ZR.  
REGULATION OF THE COPPER-OXIDE CLUSTER STRUCTURE AND DENOX ACTIVITY OF CU-ZSM-5  
CATALYSTS BY VARIATION OF OH/CU<sup>2+</sup>  
CATALYSIS TODAY 197(1), 214-227 (2012)
8. ANUFRIENKO, VF; SHUTILOV, RA; ZENKOVETS, GA; GAVRILOV, VY; VASENIN, NT; SHUBIN, AA;  
LARINA, TV; ZHUZHGOV, AV; ISMAGILOV, ZR; PARMON, VN.  
THE STATE OF CU<sup>2+</sup> IONS IN CONCENTRATED AQUEOUS AMMONIA SOLUTIONS OF COPPER  
NITRATE  
RUSSIAN JOURNAL OF INORGANIC CHEMISTRY 57(9), 1285-1290 (2012)
9. YASHNIK, SA; ANUFRIENKO, VF; SAZONOV, VA; ISMAGILOV, ZR; PARMON, VN.  
LOW-TEMPERATURE ACTIVATION OF NITROGEN OXIDE ON CU-ZSM-5 CATALYSTS  
KINETICS AND CATALYSIS 53(3), 363-373 (2012)
10. KUZNETSOV, VL; MOSEENKOV, SI; ELUMEEVA, KV; LARINA, TV; ANUFRIENKO, VF; ROMANENKO, AI;  
ANIKEEVA, OB; TKACHEV, EN.  
COMPARATIVE STUDY OF REFLECTANCE PROPERTIES OF NANODIAMONDS, ONION-LIKE CARBON  
AND MULTIWALLED CARBON NANOTUBES  
PHYSICA STATUS SOLIDI B-BASIC SOLID STATE PHYSICS 248(11), 2572-2576 (2011)
11. ANUFRIENKO, VF; ZENKOVETS, GA; SHUTILOV, RA; GAVRILOV, VY; VASENIN, NT; SHUBIN, AA;  
ISMAGILOV, ZR; PARMON, VN.  
SPECIFIC FEATURES OF ASSOCIATION OF CU<sup>2+</sup> IONS IN CONCENTRATED AQUEOUS AMMONIA  
SOLUTIONS OF COPPER NITRATE AS PROBED BY ESR  
DOKLADY AKADEMII NAUK 440, 194-197 (2011)
12. AFANASEV, DS; ANUFRIENKO, VF; RUZANKIN, SF; LARINA, TV; KUZNETSOVA, NI; BUKHTIYAROV, VI.  
EFFECT OF OXYGEN ADSORPTION ON THE SURFACE PLASMON RESONANCE OF OXIDE-SUPPORTED  
SILVER NANOPARTICLES  
DOKLADY AKADEMII NAUK 436, 23-25 (2011)
13. KHAASSIN, AA; FILONENKO, GA; MINYUKOVA, TP; MOLINA, IY; PLYASOVA, LM; LARINA, TV;  
ANUFRIENKO, VF.  
EFFECT OF ANIONIC ADMIXTURES ON THE COPPER-MAGNESIUM MIXED OXIDE REDUCTION  
REACTION KINETICS, MECHANISMS AND CATALYSIS 101(1), 73-83 (2010)
14. BARNAKOV, CN; KOZLOV, AP; ROMANENKO, AI; VASENIN, NT; ANUFRIENKO, VF; ISMAGILOV, ZR.  
SYNTHESIS AND PROPERTIES OF A MICROPOROUS CARBON MATERIAL AS A CATALYST SUPPORT  
FOR FUEL CELLS  
KINETICS AND CATALYSIS 51(2), 312-317 (2010)
15. KRIVORUCHKO, OP; LARINA, TV; ANUFRIENKO, VF; MOLINA, IY; PAUKSHTIS, EA.  
SYNTHESIS, ELECTRONIC STATE, AND PARTICLE SIZE STABILIZATION OF NANOPARTICULATE  
[CO(OH)(2)(H3O) (DELTA) (+) ](DELTA+)  
INORGANIC MATERIALS 45(12), 1355-1361 (2009)
16. IVANOVA, NA; ONISCHUK, AA; VOSEL, SV; PURTOV, PA; KULIK, LV; RAPATSKIY, LL; VASENIN, NT;  
ANUFRIENKO, VF.  
EPR SPECTRA OF AEROSOL PARTICLES FORMED BY PYROLYSIS OF C<sub>3</sub>H<sub>8</sub> PLUS AR AND C<sub>3</sub>H<sub>8</sub> PLUS  
FE(CO)(5) PLUS AR MIXTURES IN A FLOW REACTOR  
APPLIED MAGNETIC RESONANCE 35(4), 625-637 (2009)
17. IVANOVA, NA; ONISCHUK, AA; VOSEL, SV; PURTOV, PA; VASENIN, NT; ANUFRIENKO, VF; IKORSKI,  
VN.

- REVERSIBLE MODIFICATION OF MAGNETIC PROPERTIES OF FE<sub>3</sub>C NANOPARTICLES BY CHEMISORPTION OF CO  
APPLIED MAGNETIC RESONANCE 33(3), 285-291 (2008)
18. MALYKHIN, SE; ANUFRIENKO, VF; HANSEN, EJM; KUZNETSOVA, EV; LARINA, TV; ZHIDOMIROV, GM.  
DISTORTION OF THE TETRAHEDRAL COORDINATION OF FE(III) IONS STABILIZED IN ZSM-5 ZEOLITE FRAMEWORK  
JOURNAL OF STRUCTURAL CHEMISTRY 48(5), 855-861 (2007)
  19. ANUFRIENKO, VF; MOROZ, BL; LARINA, TV; RUZANKIN, SP; BUKHTIYAROV, VI; PARMON, VN.  
IDENTIFICATION OF GOLD OXIDE CLUSTER STRUCTURES IN AU/AL<sub>2</sub>O<sub>3</sub> CATALYSTS FOR LOW-TEMPERATURE CO OXIDATION  
DOKLADY AKADEMII NAUK 413, 75-80 (2007)
  20. ZAKHAROV, II; ISMAGILOV, ZR; RUZANKIN, SP; ANUFRIENKO, VF; YASHNIK, SA; ZAKHAROVA, OI.  
DENSITY FUNCTIONAL THEORY MOLECULAR CLUSTER STUDY OF COPPER INTERACTION WITH NITRIC OXIDE DIMER IN CU-ZSM-5 CATALYSTS  
JOURNAL OF PHYSICAL CHEMISTRY C 111(7), 3080-3089 (2007)
  21. ALTYYNNIKOV, AA; TSIKOZA, LT; ANUFRIENKO, VF.  
ORDERING OF CU(II) IONS IN SUPPORTED COPPER-TITANIUM OXIDE CATALYSTS  
JOURNAL OF STRUCTURAL CHEMISTRY 47(6), 1161-1169 (2006)
  22. KHAASSIN, AA; RUZANKIN, SF; ANUFRIENKO, VF; ALTYYNNIKOV, AA; LARINA, TV; VAN DEN HEUVEL, J; YURIEVA, TM; PARMON, VN.  
PECULIARITIES OF THE ELECTRONIC SPECTRA OF MODEL CU-ZN CATALYSTS OF METHANOL SYNTHESIS IN THE OXIDIZED AND REDUCED STATES  
DOKLADY AKADEMII NAUK 409, 193-197 (2006)
  23. ZAIKOVSKII, VI; VOSTNERIKOV, AV; ANUFRIENKO, VF; KOROBITSYNA, LL; KODENEV, EG; ECHEVSKII, GV; VASENIN, NT; ZHURAVKOV, SP; MATUS, EV; ISMAGILOV, ZR; PARMON, VN.  
PROPERTIES AND DEACTIVATION OF THE ACTIVE SITES OF AN MOZSM-5 CATALYST FOR METHANE DEHYDROAROMATIZATION: ELECTRON MICROSCOPIC AND EPR STUDIES  
KINETICS AND CATALYSIS 47(3), 389-394 (2006)
  24. RUZANKIN, SF; ANUFRIENKO, VF; YASHNIK, SA; ISMAGILOV, ZR.  
QUANTUM-CHEMICAL ANALYSIS OF THE CUCL<sub>2</sub> MOLECULE  
JOURNAL OF STRUCTURAL CHEMISTRY 47(3), 404-412 (2006)
  25. YASHNIK, SA; ISMAGILOV, ZR; ANUFRIENKO, VF.  
CATALYTIC PROPERTIES AND ELECTRONIC STRUCTURE OF COPPER IONS IN CU-ZSM-5 CATALYSIS TODAY 110(3-4), 310-322 (2005)
  26. ZAIKOVSKII, VI; VOSMERIKOV, AV; ANUFRIENKO, VF; KOROBITSYNA, LL; KODENEV, EG; ECHEVSKY, GV; VASENIN, NT; ZHURAVKOV, SP; ISMAGILOV, ZR; PARMON, VN.  
ON THE STATE OF ACTIVE SITES AND DEACTIVATION OF MO-ZNS-5 CATALYSTS OF METHANE DEHYDROAROMATIZATION  
DOKLADY AKADEMII NAUK 404(4), 500-504 (2005)  
[ZAIKOVSKII, VI; VOSMERIKOV, AV; ANUFRIENKO, VF; KOROBITSYNA, LL; KODENEV, EG; ECHEVSKII, GV; VASENIN, NT; ZHURAVKOV, SP; ISMAGILOV, ZR; PARMON, VN.  
THE STATE OF THE ACTIVE SITES AND DEACTIVATION OF MO-ZSM-5 CATALYSTS OF METHANE DEHYDROAROMATIZATION  
PHYSICAL CHEMISTRY-DOKLADY 404(4-6), 201-204 (2005)]
  27. VASENIN, NT; FEDOROVA, AA; ANUFRIENKO, VF; LARINA, TV; MOROZOV, IV; PAUKSHTIS, EA; ISMAGILOV, ZR.  
THE SPECIAL FEATURES OF THE ELECTRONIC STATE OF COPPER AND THE STRUCTURE OF COPPER-CONTAINING FRAGMENTS IN CUO-ZRO<sub>2</sub> CATALYSTS SYNTHESIZED IN MOLTEN AMMONIUM NITRATE  
RUSSIAN JOURNAL OF PHYSICAL CHEMISTRY 79(8), 1249-1255 (2005)
  28. ZAKHAROV, II; ANUFRIENKO, VF; ZAKHAROVA, OI; YASHNIK, SA; ISMAGILOV, ZR.  
AB INITIO CALCULATION OF NITROGEN OXIDE DIMER STRUCTURE AND ITS ANION-RADICAL  
JOURNAL OF STRUCTURAL CHEMISTRY 46(2), 213-219 (2005)

29. VASENIN, NT; ANUFRIENKO, VF; ISMAGILOV, IZ; LARINA, TV; PAUKSHTIS, EA; MATUS, EV; TSIKOZA, LT; KERZHENTSEV, MA; ISMAGILOV, ZR.  
EFFECT OF THERMAL TREATMENT ON STATES OF MOLYBDENUM IN MO/H-ZSM-5 CATALYST FOR METHANE DEHYDROAROMATIZATION: ESR AND UV-VIS STUDY  
TOPICS IN CATALYSIS 32(1-2), 61-70 (2005)
30. KRIVORUCHKO, OP; ANUFRIENKO, VF; PAUKSHTIS, EA; LARINA, TV; BURGINA, EB; YASHNIK, SA; ISMAGILOV, ZR; PARMON, VN.  
STABILIZATION OF CO<sub>2</sub><sup>+</sup> AND CU<sub>2</sub><sup>+</sup> BY EXTRAFRAMEWORK ALUMINUM IONS IN HZSM-5 ZEOLITE CHANNELS  
DOKLADY AKADEMII NAUK 398, 226-230 (2004)
31. ISMAGILOV, ZR; YASHNIK, SA; ANUFRIENKO, VF; LARINA, TV; VASENIN, NT; BULGAKOV, NN; VOSEL, SV; TSYKOZA, LT.  
LINEAR NANOSCALE CLUSTERS OF CUO IN CU-ZSM-5 CATALYSTS  
APPLIED SURFACE SCIENCE 226(1-3), 88-93 (2004)
32. KNOBL, S; ZENKOVETS, GA; KRYUKOVA, GN; MAKSIMOVSKAYA, RI; LARINA, TV; VASENIN, NT; ANUFRIENKO, VF; NIEMEYER, D; SCHLOGL, R.  
NANOCLUSTERS AS PRECURSORS TO (MOVW)(5)O-14: IN SITU AND CHEMICAL CHARACTERISATION OF THE SYSTEMS OF A SINGLE PHASE OXIDATION CATALYST  
PHYSICAL CHEMISTRY CHEMICAL PHYSICS 5(23), 5343-5348 (2003)
33. KHAJJIN, AA; YURIEVA, TM; DEMESHKINA, MP; KUSTOVA, GN; ITENBERG, IS; KAICHEV, VV; PLYASOVA, LM; ANUFRIENKO, VF; MOLINA, IY; LARINA, TV; BARONSKAYA, NA; PARMON, VN.  
CHARACTERIZATION OF THE NICKEL-AMESITE-CHLORITE-VERMICULITE SYSTEM. PART I. SILICON BINDING IN NI-MG-AL PHYLLOALUMINOSILICATES  
PHYSICAL CHEMISTRY CHEMICAL PHYSICS 5(18), 4025-4031 (2003)
34. ANUFRIENKO, VF; YASHNIK, SA; BULGAKOV, NN; LARINA, TV; VASENIN, NT; ISMAGILOV, ZR.  
A STUDY OF LINEAR COPPER OXIDE STRUCTURES IN THE CHANNELS OF THE ZSM-5 ZEOLITE BY ELECTRONIC DIFFUSE REFLECTANCE SPECTROSCOPY  
DOKLADY AKADEMII NAUK 392(1-3), 207-211 (2003)
35. ANUFRIENKO, VF; BULGAKOV, NN; VASENIN, NT; YASHNIK, SA; TSIKOZA, LT; VOSEL, SV; ISMAGILOV, ZR.  
DETECTION OF O- RADICAL ANIONS IN CU-ZSM-5 ZEOLITES AFTER HEAT TREATMENT  
DOKLADY AKADEMII NAUK 386(4-6), 273-276 (2002)
36. DANILOVA, IG; PAUKSHTIS, EA; KALINKIN, AV; CHUVILIN, AL; LITVAK, GS; ALTYNNIKOV, AA; ANUFRIENKO, VF.  
CATALYTIC AND PHYSICOCHEMICAL PROPERTIES OF OXIDATIVE CONDENSATION PRODUCTS IN THE OXIDATIVE DEHYDROGENATION OF PROPANE BY SULFUR DIOXIDE ON SIO<sub>2</sub>  
KINETICS AND CATALYSIS 43(5), 698-710 (2002)
37. LARINA, TV; IKORSKII, VN; VASENIN, NT; ANUFRIENKO, VF; NAUMOV, NG; OSPANINA, EV; FEDOROV, VE.  
ELECTRONIC STATE OF RHENIUM COMPLEXES WITH OCTAHEDRAL CHALCOCYANIDE CLUSTER ANIONS [RE(6)Q(8)(CN)(6)](3-) (Q=S, SE, TE). EPR AND MAGNETIC SUSCEPTIBILITY STUDIES  
RUSSIAN JOURNAL OF COORDINATION CHEMISTRY 28(8), 554-556 (2002)
38. ZENKOVETS, GA; KRYUKOVA, GN; TSYBULYA, SV; ANUFRIENKO, VF; LARINA, TV; BURGINA, EB.  
THE STRUCTURE OF OXIDE GA-SB-NI-P-W-O/SIO<sub>2</sub> CATALYST AND ITS CATALYTIC PROPERTIES IN PROPANE AMMOXIDATION  
KINETICS AND CATALYSIS 43(3), 384-390 (2002)
39. MANDAL, S; ROJAS, RM; AMARILLA, JM; CALLE, P; KOSOVA, NV; ANUFRIENKO, VF; ROJO, JM.  
HIGH TEMPERATURE CO-DOPED LIMN<sub>2</sub>O<sub>4</sub>-BASED SPINELS. STRUCTURAL, ELECTRICAL, AND ELECTROCHEMICAL CHARACTERIZATION  
CHEMISTRY OF MATERIALS 14(4), 1598-1605 (2002)
40. KOSOVA, NV; ANUFRIENKO, VF; LARINA, TV; ROUGIER, A; AYMARD, L; TARASCON, JM.  
DISORDERING AND ELECTRONIC STATE OF COBALT IONS IN MECHANOCHEMICALLY SYNTHESIZED LICOO<sub>2</sub>  
JOURNAL OF SOLID STATE CHEMISTRY 165(1), 56-64 (2002)

41. PLYASOVA, LM; ANUFRIENKO, VF; BESKROVNYI, AI; MOLINA, IY; KRIEGER, TA; IKORSKII, VN; LARINA, TV; DAVYDOVA, LP.  
REDOX TREATMENT EFFECTS ON THE MAGNETIC PROPERTIES OF COPPER CHROMITE  
JOURNAL OF STRUCTURAL CHEMISTRY 43(2), 252-256 (2002)
42. KOSOVA, NV; ANUFRIENKO, VF; VASENIN, NT; VOSEL, SV; DEVYATKINA, ET.  
ELECTRONIC STATE OF VANADIUM IONS IN  $Li_1+xV_3O_8$  ACCORDING TO EPR SPECTROSCOPY  
JOURNAL OF SOLID STATE CHEMISTRY 163(2), 421-426 (2002)
43. KHAASSIN, AA; ANUFRIENKO, VF; IKORSKII, VN; PLYASOVA, LM; KUSTOVA, GN; LARINA, TV; MOLINA, IY; PARMON, VN.  
PHYSICO-CHEMICAL STUDY ON THE STATE OF COBALT IN A PRECIPITATED COBALT-ALUMINUM OXIDE SYSTEM  
PHYSICAL CHEMISTRY CHEMICAL PHYSICS 4(17), 4236-4243 (2002)
44. KOSOVA, NV; DEVYATKINA, ET; ANUFRIENKO, VF; KAICHEV, VV; BUHKTIYAROV, VI; VOSEL, SV; VASENIN, NT; LARINA, TV.  
ELECTRONIC STATE OF IONS IN MECHANOCHEMICALLY PREPARED INTERCALATION LITHIUM-TRANSITION METAL OXIDE COMPOUNDS  
IN: NEW TRENDS IN INTERCALATION COMPOUNDS FOR ENERGY STORAGE, NATO SCIENCE SERIES II: MATHEMATICS, PHYSICS AND CHEMISTRY 61, 515-522 (2002)
45. KOSOVA, N; DEVYATKINA, E; ANUFRIENKO, V; ET AL.  
USING OF MECHANICAL ACTIVATION IN THE RECHARGEABLE LITHIUM BATTERIES CREATION  
CHEMISTRY FOR SUSTAINABLE DEVELOPMENT 10, 127 (2002)
46. KOSOVA, NV; VOSEL, SV; ANUFRIENKO, VF; VASENIN, NT; DEVYATKINA, ET.  
REDUCTION PROCESSES IN THE COURSE OF MECHANOCHEMICAL SYNTHESIS OF  $Li_1+xV_3O_8$   
JOURNAL OF SOLID STATE CHEMISTRY 160(2), 444-449 (2001)
47. KHAASSIN, AA; YURIEVA, TM; KUSTOVA, GN; PLYASOVA, LM; KRIEGER, TA; ITENBERG, IS; DEMESHKINA, MP; LARINA, TV; ANUFRIENKO, VF; PARMON, VN.  
EVOLUTION OF THE STRUCTURE OF CO STEVENSITE DURING ITS TREATMENT IN THE AIR, INERT GAS FLOW AND FLOWING HYDROGEN  
MATERIALS RESEARCH INNOVATIONS 4(4), 251-261 (2001)
48. KHAASSIN, AA; YURIEVA, TM; KUSTOVA, CN; PLYASOVA, LM; ITENBERG, IS; DEMESHKINA, MP; CHERMASHENTSEVA, GK; ANUFRIENKO, VF; ZAIKOVSKII, VI; LARINA, TV; MOLINA, IY; PARMON, VN.  
COBALT-CONTAINING CATALYSTS SUPPORTED BY SYNTHETIC ZN- AND MG-STEVENITES AND THEIR PERFORMANCE IN THE FISCHER-TROPSCH SYNTHESIS  
JOURNAL OF MOLECULAR CATALYSIS A-CHEMICAL 168(1-2), 209-224 (2001)
49. ZENKOVETS, GA; KRYUKOVA, GN; TSYBULYA, SV; ANUFRIENKO, VF; GAVRILOV, VY.  
STRUCTURE PECULIARITIES OF REDUCED VANADIUM-TITANIUM OXIDE CATALYSTS  
KINETICS AND CATALYSIS 42(1), 132-137 (2001)
50. SAKAEVA, NS; VARNEK, VA; BUKHTIYAROVA, GA; ANUFRIENKO, VF; SOBOLEV, EA; ZOLOTOVSKII, BP.  
MOSSBAUER SPECTROSCOPY STUDY OF ALUMINA-SUPPORTED IRON-CONTAINING CATALYSTS FOR HYDROGEN SULFIDE OXIDATION  
REACTION KINETICS AND CATALYSIS LETTERS 70(1), 169-176 (2000)
51. ALTYNNIKOV, AA; ZENKOVETS, GA; ANUFRIENKO, VF.  
ESR STUDY OF REDUCED VANADIUM-TITANIUM OXIDE CATALYSTS  
REACTION KINETICS AND CATALYSIS LETTERS 67(2), 273-279 (1999)
52. ALTYNNIKOV, AA; ZENKOVETS, GA; ANUFRIENKO, VF.  
ESR STUDY OF THE STABILIZATION OF  $V^{4+}$  IONS IN  $TiO_2$  (ANATASE)  
REACTION KINETICS AND CATALYSIS LETTERS 66(1), 85-90 (1999)
53. ALTYNNIKOV, AA; ANUFRIENKO, VF; ROZOVSKII, AY; LIN, GI; LUNINA, EV; SADYKOV, VA.  
ESR DETECTION OF COPPER ION CLUSTERS IN THE CU-ZN-AL OXIDE CATALYSTS FOR METHANOL SYNTHESIS  
KINETICS AND CATALYSIS 40(1), 117-120 (1999)
54. VOSEL, SV; ALTYNNIKOV, AA; TOMAS, VG; KALININ, DV; ANUFRIENKO, VF.  
NATURE OF PARAMAGNETISM ORIGINATED IN  $SiO_2$ - $Al_2O_3$ - $N_2$ -C SYSTEM AT HIGH-TEMPERATURE  
ZHURNAL NEORGANICHESKOI KHIMII 39(11), 1830-1834 (1994)

55. ALTYNNIKOV, AA; KALINKINA, OV; ANUFRIENKO, VF; SHUBIN, AA; VOSSEL, SV; ZAKHAROV, VV; BULGAKOV, NN.  
ESR STUDY OF ORDERED TI(III) CLUSTERS IN FROZEN-SOLUTIONS  
REACTION KINETICS AND CATALYSIS LETTERS 52(2), 261-267 (1994)
56. VOLKOVA, GG; YUREVA, TM; KUSTOVA, GN; PLYASOVA, LM; KHARLAMOV, GV; LITVAK, GS; ANUFRIENKO, VF.  
SYNTHESIS OF ZN-CO OXIDE CATALYSTS WITH SPINEL STRUCTURE  
RUSSIAN JOURNAL OF APPLIED CHEMISTRY 67(5), 696-701 (1994)
57. ALTYNNIKOV, AA; ZENKOVETS, GA; ANUFRIENKO, VF.  
PECULIARITIES OF ESR-SPECTRA OF V-TI OXIDE SYSTEMS  
REACTION KINETICS AND CATALYSIS LETTERS 52(1), 59-63 (1994)
58. SPOZHAKINA, AA; KOSTOVA, NG; SHOKHIREVA, TK; YUREVA, TM; ALTYNNIKOV, AA; ANUFRIENKO, VF.  
THE INTERACTION OF HYDROGEN-SULFIDE WITH SILICA-SUPPORTED PHOSPHORUS MOLYBDENUM HETEROPOLYACID  
KINETICS AND CATALYSIS 34(6), 976-979 (1993)
59. IVANKIN, IA; AVVAKUMOV, EG; KOMAROVA, NI; ANUFRIENKO, VF; BERDOV, GI.  
MECHANICAL ACTIVATION OF INITIAL CHARGE AS A METHOD FOR IMPROVING WHITENESS OF CEMENT CLINKER  
RUSSIAN JOURNAL OF APPLIED CHEMISTRY 66(11), 1875-1877 (1993)
60. DAVYDOVA, LP; FENELONOV, VB; SADYKOV, VA; PLYASOVA, LM; ANUFRIENKO, VF.  
NATURE OF THE ACTIVE COMPONENT OF APPLIED COPPER-OXIDE CATALYSTS IN COMPLETE-OXIDATION REACTIONS  
KINETICS AND CATALYSIS 34(1), 111-116 (1993)
61. ANUFRIENKO, VF; ALTYNNIKOV, AA; CHUMACHENKO, NN.  
IDENTIFICATION OF EXCHANGE-COUPLED V<sup>4+</sup> AND CU<sup>2+</sup> IONS IN CU-V-MO OXIDE SYSTEMS  
REACTION KINETICS AND CATALYSIS LETTERS 48(2), 589-592 (1992)
62. ANUFRIENKO, VF; ALTYNNIKOV, AA.  
STATE OF COPPER IN MASSIVE CU-V-MO OXIDE SYSTEMS  
REACTION KINETICS AND CATALYSIS LETTERS 48(2), 583-588 (1992)
63. SMIRNOVA, LV; ANUFRIENKO, VF; KROPACHEVA, EN; PANASYUK, SL.  
ESR STUDY OF THE INTERACTION OF TRIBENZYL TITANIUM WITH DIISOBUTYLALUMINIUM CHLORIDE  
REACTION KINETICS AND CATALYSIS LETTERS 48(1), 85-91 (1992)
64. ANUFRIENKO, VF; SMIRNOVA, LV; KROPACHEVA, EN.  
INTERACTION OF TRIBENZYL TITANIUM WITH BUTADIENE  
REACTION KINETICS AND CATALYSIS LETTERS 48(1), 73-76 (1992)
65. SHOKHIREVA, TK; YURIEVA, TM; ALTYNNIKOV, AA; ANUFRIENKO, VF; PLYASOVA, LM; LITVAK, GS; SPOJAKINA, AA; KOSTOVA, N.  
INTERACTION OF HYDROGEN-SULFIDE WITH MOLYBDOPHOSPHORIC HETEROPOLYACID  
REACTION KINETICS AND CATALYSIS LETTERS 47(2), 177-185 (1992)
66. SMIRNOVA, LV; YATSENKO, LA; BOLDYREV, AG; ANUFRIENKO, VF; GANKINA, ES; MALAKHOVA, II; KROPACHEVA, EN.  
EFFECT OF THE RATIO OF THE COMPONENTS OF THE TITANIUM TETRACHLORIDE-ACETOPHENONE-TRIISOBUTYLALUMINUM CATALYTIC-SYSTEM ON THE ALTERNATING COPOLYMERIZATION OF BUTADIENE AND PROPYLENE ACCORDING TO EPR DATA  
KINETICS AND CATALYSIS 33(3), 481-487 (1992)
67. TIKHOV, SF; SADYKOV, VA; KRYUKOVA, GN; PAUKSHTIS, EA; POPOVSKII, VV; STAROSTINA, TG; KHARLAMOV, GV; ANUFRIENKO, VF; POLUBOYAROV, VF; RAZDOBAROV, VA; BULGAKOV, NN; KALINKIN, AV.  
MICROSTRUCTURAL AND SPECTROSCOPIC INVESTIGATIONS OF THE SUPPORTED COPPER ALUMINA OXIDE SYSTEM - NATURE OF AGING IN OXIDIZING REACTION MEDIA  
JOURNAL OF CATALYSIS 134(2), 506-524 (1992)
68. KHARLAMOV, GV; IVANKIN, IA; GALTSOVA, EA; SHUBIN, AA; ANUFRIENKO, VF.  
ESR-SPECTRA OF OXYGEN RADICAL-IONS IN KAOLINITE

- JOURNAL OF STRUCTURAL CHEMISTRY 33(1), 151-153 (1992)
69. ZAKHAROV, VV; ANUFRIENKO, VF.  
ESR IDENTIFICATION OF FORMATION STAGES FOR  $TiCl_3$  PARTICLES IN CATALYSTS FOR ISOPRENE POLYMERIZATION  
REACTION KINETICS AND CATALYSIS LETTERS 43(2), 343-347 (1991)
  70. DERGALEVA, GA; PAKHOMOV, NA; BENDYURIN, VN; ANUFRIENKO, VF.  
STATE OF COPPER IN COPPER AND PLATINUM COPPER-CATALYSTS SUPPORTED ON  $MgAl_2O_4$  SPINEL  
KINETICS AND CATALYSIS 32(2), 435-438 (1991)
  71. ANUFRIENKO, VF; GUZMAN, IS; ZAKHAROV, VV; ADROV, OI; KUCHEROV, AV.  
ESR-SPECTRA OF  $Ti-47$ -ENRICHED TITANIUM CATALYSTS FOR POLYMERIZATION  
REACTION KINETICS AND CATALYSIS LETTERS 43(1), 75-79 (1991)
  72. KHARLAMOV, GV; ROMANNIKOV, VN; ANUFRIENKO, VF.  
EFFECT OF STABILIZATION OF  $Cu^{2+}$  IONS IN CATIONIC POSITIONS OF IRON-SILICATE ZEOLITE  
KINETICS AND CATALYSIS 31(5), 1123-1124 (1990)
  73. ZAKHAROV, VV; ANUFRIENKO, VF; FILATOVA, TF.  
SPECTRAL OBSERVATION OF ALKYLATED  $Ti-3+$  COMPLEXES IN CATALYTIC-SYSTEMS  $TiCl_4 + AlR_3$   
REACTION KINETICS AND CATALYSIS LETTERS 42(1), 127-131 (1990)
  74. ZAKHAROV, VV; ANUFRIENKO, VF; FILATOVA, TF; GUZMAN, IS; ADROV, OI; KUCHEROV, AV.  
SOME PECULIARITIES IN ESR-SPECTRA OF TITANIUM COMPLEXES IN CATALYSTS FOR ISOPRENE POLYMERIZATION IN EXCESS  $AlR_3$   
REACTION KINETICS AND CATALYSIS LETTERS 42(1), 107-112 (1990)
  75. IVANKIN, IA; KHARLAMOV, VG; ANUFRIENKO, VF; BERDOV, GI; KOMAROVA, NI.  
CHANGE IN THE STATE OF IRON IMPURITIES IN A STOCK MIXTURE OF WHITE CEMENT CLINKER AND ITS COMPONENTS DURING ROASTING  
JOURNAL OF APPLIED CHEMISTRY 63(6), 1131-1136 (1990)
  76. IVANKIN, IA; KHARLAMOV, GV; ANUFRIENKO, VF; BERDOV, GI; KHLUSOV, VB; KOMAROVA, NI; RYAZIN, VP.  
EFFECT OF IRON CLUSTERS ON WHITENESS OF TRICALCIUM ALUMINATE  
JOURNAL OF APPLIED CHEMISTRY 63(5), 959-965 (1990)
  77. BOGDANCHIKOVA, NE; DULIN, MN; DAVYDOV, AA; ANUFRIENKO, VF.  
DIFFUSE REFLECTANCE ELECTRON SPECTROSCOPIC STUDY OF THE STATE OF SILVER CLUSTERS ON  $SiO_2$   
REACTION KINETICS AND CATALYSIS LETTERS 41(1), 73-78 (1990)
  78. KHARLAMOV, GV; IVANKIN, IA; BOGDANCHIKOVA, NE; ANUFRIENKO, VF; DAVYDOV, AA.  
SPECTROSCOPIC STUDY OF SILVER STATE IN  $CaO$   
REACTION KINETICS AND CATALYSIS LETTERS 41(1), 47-51 (1990)
  79. POLUBOYAROV, VA; POTAPOV, GP; DERGALEVA, GA; ANUFRIENKO, VF; YUMATOV, VD; OKOTRUB, AV; MAZALOV, LN; ALIEVA, MI; LEVANOVA, SV.  
STUDY OF CORRELATION BETWEEN THERMODYNAMICS OF ADDITIONAL BASES EXTRACOORDINATION BY METALLOPORPHYRINS AND CATALYTIC PROPERTIES OF METALLOPORPHYRINS  
KOORDINATSIONNAYA KHIMIYA 16(4), 529-533 (1990)
  80. ECHEVSKII, GV; KHARLAMOV, GV; LITVAK, GS; NOSYREVA, GN; ANUFRIENKO, VF; IONE, KG.  
EFFECT OF THE REACTION TEMPERATURE ON THE CATALYTIC STABILITY OF PENTASIL ZEOLITES AND THE FEATURES OF COKE FORMATION ON THEM  
KINETICS AND CATALYSIS 30(5), 1022-1028 (1989)
  81. KHARLAMOV, GV; ROMANNIKOV, VN; KUZNETSOV, VI; ANUFRIENKO, VF.  
STUDY OF THE STATE OF  $Fe-3+$  IONS IN IRON SILICATE CATALYSTS OF THE PENTASIL TYPE  
KINETICS AND CATALYSIS 30(5), 1029-1033 (1989)
  82. TIKHOV, SF; PAULOHTIS, EA; SADYKOV, VA; POPOVSKII, VV; STAROSTINA, TG; KRYUKOVA, GN; KHARLAMOV, GV; ANUFRIENKO, VF; POLUBOYAROV, V F.  
SPECTROSCOPIC STUDY OF THE STATE OF THE SURFACE OF COPPER ALUMINUM OXIDE CATALYSTS  
KINETIKA I KATALIZ 30, 869 (1989)



- [TIKHOV, SF; PAUKSHTIS, EA; SADYKOV, VA; POPOVSKII, VV; STAROSTINA, TG; KRYUKOVA, GN; KHARLAMOV, GV; ANUFRIENKO, VF; POLUBOYAROV, VF; RAZDOBAROV, VA; BULGAKOV, NN; KALINKIN, AV.  
SPECTROSCOPIC STUDY OF THE SURFACE-STATE OF COPPER-ALUMINUM OXIDE CATALYSTS  
KINETICS AND CATALYSIS 30(4), 764-772 (1989)]
83. ANUFRIENKO, VF; BULUSHEVA, VS; DERGALEVA, GA; LEVITSKII, EA; MOROZ, EM; POLUBOYAROV, VA.  
STATE OF SALTS IN PORES OF DISPERSED SUPPORTS  
KINETICS AND CATALYSIS 30(4), 879-881 (1989)
84. BOGDANCHIKOVA, NE; ANUFRIENKO, VF; DAVYDOV, AA.  
STATE OF SILVER IN CATALYSTS SUPPORTED BY THE QUARTZGLASS POWDER INVESTIGATED BY ELECTRONIC SPECTROSCOPY OF DIFFUSION REFLECTION (ESDR)  
IZVESTIYA AKADEMII NAUK (4), 144-149 (1989)
85. FROLOVA, JJ; BURYLIN, SY; RACHKOVSKAYA, LN; KALININA, NG; KHARLAMOV, GV; POLUBOYAROV, VA; ANUFRIENKO, VF.  
EFFECT OF CARBON COATING PECULIARITIES ON ADSORPTION PROPERTIES OF CARBON-MINERAL SORBENTS  
IZVESTIYA AKADEMII NAUK (4), 139-143 (1989)
86. KOSHELEV, SN; KALININA, NG; POLUBOYAROV, VA; ANUFRIENKO, VF; MASHKINA, AV.  
CATALYTIC DECOMPOSITION OF DIMETHYL SULFIDE IN THE PRESENCE OF GAMMA-AL<sub>2</sub>O<sub>3</sub>  
KINETICS AND CATALYSIS 30(3), 594-598 (1989)
87. POLUBOYAROV, VA; DERGALEVA, GA; ANUFRIENKO, VF; PAVLOVA, SN; SAZONOV, VA; POPOVSKII, VV; ZENKOVETS, GA.  
ELECTRONIC STATE OF REDUCED TiO<sub>2</sub> AND Pd/TiO<sub>2</sub> AS DETERMINED FROM EPR DATA  
KINETICS AND CATALYSIS 30(3), 612-619 (1989)
88. IVANKIN, IA; KHARLAMOV, GV; ANUFRIENKO, VF; BERDOV, GI; KOMAROVA, NI.  
SPECTROSCOPIC STUDY OF THE STATE OF TRANSITION-ELEMENT IMPURITIES AND THEIR INFLUENCE ON COLORATION IN WHITE-CEMENT CLINKER  
JOURNAL OF APPLIED CHEMISTRY 62(5), 951-957 (1989)
89. BOBKOVA, AA; LOGVINENKO, VA; ANUFRIENKO, VF; HARLAMOV, GV; POLUBOYAROV, VA; GLYBOVSKAYA, VA.  
SPECTROSCOPIC STUDY OF THE CONSTITUTION OF THE TRANSITION-METALS OXALATE COMPLEXES WITH HYDRAZINE  
IZVESTIYA AKADEMII NAUK (3), 99-104 (1989)
90. BULGAKOV, NN; ANUFRIENKO, VF; ZAKHAROV, VV.  
INTERPRETATION OF ENERGY STABILITY FOR Ti-2(7+) AND Ti-2(6+) DIMERS  
REACTION KINETICS AND CATALYSIS LETTERS 40(2), 221-225 (1989)
91. AGAZADE, AG; DERGALEVA, GA; ANUFRIENKO, VF; DAVYDOV, AA; SHAKHTAKHTINSKII, TN; EFENDIEV, AD.  
ELECTRONIC STATE OF THE ACTIVE-SITE OF A V-P-O/SiO<sub>2</sub> CATALYST IN OXIDATION OF CHLORINE-CONTAINING HYDROCARBONS  
REACTION KINETICS AND CATALYSIS LETTERS 40(1), 83-88 (1989)
92. ALEKSEEV, OS; POLUBOYAROV, VA; RYNDIN, YA; ANUFRIENKO, VF.  
EPR STUDY OF THE NATURE OF ACTIVE-SITES AND THE TYPE OF THEIR DEACTIVATION IN CO HYDROGENATION ON (Ni+Ti)/SiO<sub>2</sub> CATALYSTS  
REACTION KINETICS AND CATALYSIS LETTERS 38(2), 319-324 (1989)
93. ZAKHAROV, VV; ANUFRIENKO, VF; FILATOVA, TF; SAVELIEV, VS; SADYKOV, RK.  
SOME PROPERTIES OF ESR-SPECTRA OF TITANIUM COMPLEXES IN THE CATALYSTS OF ISOPRENE POLYMERIZATION  
DOKLADY AKADEMII NAUK 308(5), 1170-1173 (1989)
94. BOGDANCHIKOVA, NE; ANUFRIENKO, VF; DAVYDOV, AA; FINN, LP; ZAIKOVSKII, VI; KOLOMIICHUK, VN; MOROZ, EM; BOLDYREVA, NN.

- STUDY OF THE STATE OF SUPPORTED SILVER CATALYSTS BY ELECTRONIC DIFFUSE REFLECTANCE SPECTROSCOPY .2. STATE OF SILVER IN SUPPORTED SILVER CATALYSTS ON VARIOUS TYPES OF SILICON DIOXIDE  
KINETICS AND CATALYSIS 29(4), 784-792 (1988)
95. POTAPOV, GP; POLUBOYAROV, VA; PUNEGOV, VV; ANUFRIENKO, VF; DZHEMILEV, UM; KHARLAMOV, VG.  
EPR STUDY OF FORMATION OF THE ACTIVE COMPONENT IN GEL-IMMOBILIZED CATALYST SYSTEMS THAT CONTAIN  $Ti(OBu)_4$   
KINETICS AND CATALYSIS 29(3), 586-589 (1988)
96. ECHEVSKII, GV; KHARLAMOV, GV; POLUBOYAROV, VA; ANUFRIENKO, VF; LITVAK, GS.  
COKE FORMATION ON ZEOLITES OF THE PENTASIL TYPE DURING CONVERSION OF METHANOL INTO HYDROCARBONS .3. THE POSSIBILITY OF FORMATION OF COKE DEPOSITS INSIDE THE CHANNELS OF ZEOLITES  
KINETICS AND CATALYSIS 29(1), 212-214 (1988)
97. KHARLAMOV, GV; POTAPOV, GP; ANUFRIENKO, VF; POLUBOYAROV, VA; KALININA, NG.  
STUDY OF A STATE OF  $Cu^{2+}$  IONS AND  $VO_2^+$  IONS FIXED ON POLYMER CARRIERS BY THE ELECTRON-PARAMAGNETIC-RES METHOD AND THE ELECTRON-SPECTROSCOPY METHOD  
KOORDINATSIONNAYA KHIMIYA 14(8), 1048-1053 (1988)
98. ECHEVSKII, GV; KHARLAMOV, GV; POLUBOYAROV, VA; KALININA, NG; LITVAK, GS; ANUFRIENKO, VF.  
COKE FORMATION ON ZEOLITES OF THE PENTASIL TYPE DURING CONVERSION OF METHANOL INTO HYDROCARBONS .2. MECHANISM OF FORMATION OF COKE DEPOSITS  
KINETICS AND CATALYSIS 28(6), 1262-1265 (1987)
99. ECHEVSKII, GV; KHARLAMOV, GV; KALININA, NG; POLUBOYAROV, VA; PASHIS, AV; ANUFRIENKO, VF.  
COKE FORMATION ON ZEOLITES OF THE PENTASIL TYPE DURING CONVERSION OF METHANOL INTO HYDROCARBONS .1. EFFECT OF THE COMPOSITION OF THE ZEOLITE ON THE NATURE OF THE COKE DEPOSITS  
KINETICS AND CATALYSIS 28(6), 1257-1262 (1987)
100. KALININA, NG; POLUBOYAROV, VA; ANUFRIENKO, VF; KOSHELEV, SN; MASHKINA, AV; DANILOVICH, VS.  
INVESTIGATION OF GAMMA- $Al_2O_3$  CATALYSTS CLOGGED WITH COKE FROM DIMETHYL SULFIDE BY ELECTRON-PARAMAGNETIC-RES AND ELECTRON-MICROSCOPY  
KINETICS AND CATALYSIS 28(5), 1084-1087 (1987)
101. RYABOV, YV; ECHEVSKII, GV; ANTONOVA, NV; ANTSIBUROVA, EA; KALININA, NG; POLUBOYAROV, VA; EROFEEV, VI; ANUFRIENKO, VF.  
REGENERATION OF PENTASIL TYPE OF ZEOLITES AND ITS EFFECT ON THE NATURE OF COKE DEPOSITS  
KINETICS AND CATALYSIS 28(5), 1050-1054 (1987)
102. STRELOV, KK; KAMENSKIKH, VA; GILEV, YP; PERMIKINA, NM; ANUFRIENKO, VF; IVANKIN, IA; KHARLAMOV, GV.  
BLACK CORUNDUM PRODUCED BY HEAT-TREATMENT OF ALPHA- $Al_2O_3$  IN HYDROGEN  
INORGANIC MATERIALS 23(6), 930-933 (1987)
103. ECHEVSKII, GV; KALININA, NG; ANUFRIENKO, VF; POLUBOYAROV, VA.  
ELECTRON-SPIN-RESONANCE STUDIES OF COKE FORMATION ON ZEOLITE CATALYSTS FOR METHANOL CONVERSION  
REACTION KINETICS AND CATALYSIS LETTERS 33(2), 305-310 (1987)
104. AVVAKUMOV, EG; ANUFRIENKO, VF; VOSEL, SV; GADJIEVA, FS; KALININA, NG; POLUBOYAROV, VA.  
ELECTRON-PARAMAGNETIC-RES INVESTIGATION OF STRUCTURAL-CHANGES IN MECHANICALLY ACTIVATED TITANIUM AND VANADIUM-OXIDES  
IZVESTIYA AKADEMII NAUK (1), 41-48 (1987)
105. ANUFRIENKO, V F; VOSEL, SV; KALININA, NG; POLUBOYAROV, V A; AVVAKUMOV, E G.  
INVESTIGATION OF STRUCTURAL CHANGES IN MECHANICALLY ACTIVATED OXIDES OF TITANIUM AND VANADIUM BY THE METHOD OF ELECTRON PARAMAGNETIC RESONANCE  
SOVIET JOURNAL OF APPLIED PHYSICS I, 41 (1987)

106. VOSEL, SV; VASENIN, NT; POMOSHCHNIKOV, EE; ANUFRIENKO, VF; MIKHAILOV, VA.  
STUDY OF THE PROCESS OF SCHEELITE GRINDING BASED ON A STATISTICAL-MODEL  
IZVESTIYA AKADEMII NAUK (6), 111-117 (1986)
107. VOSEL, SV; VASENIN, NT; POMOSHCHNIKOV, EE; ANUFRIENKO, VF; MIKHAILOV, VA.  
STATISTICAL-MODEL OF GRINDING AND ACTIVATION IN APPARATUS CONTAINING MILLING BODIES  
- MEASUREMENT OF THE MEAN FREQUENCY OF PULSES OF MECHANICAL ACTION  
IZVESTIYA AKADEMII NAUK (6), 102-111 (1986)
108. SERGEEV, SA; POLUBOYAROV, VA; ZAKHAROV, VA; ANUFRIENKO, VF; BUKATOV, GD.  
PROPENE POLYMERIZATION ON TITANIUM-MAGNESIUM CATALYSTS .4. ELECTRON-SPIN-  
RESONANCE STUDY OF TI-3+ IONS  
MACROMOLECULAR CHEMISTRY AND PHYSICS 187(2), 243-255 (1986)
109. KALININA, NG; TSYBULEVSKII, AM; FILIPPOVA, TP; POLUBOYAROV, VA; ANUFRIENKO, VF.  
FEATURES OF ELECTRON-SPIN-RESONANCE SPECTRA OF COPPER-CONTAINING CATION-  
DECATIONIZED ZEOLITES  
CHEMICAL SCIENCE-BULLETIN 35(1), 6-9 (1986)
110. CHUDAEV, VV; POLUBOYAROV, VA; ANUFRIENKO, VF; TRETYAKOV, VP; RUDAKOV, ES.  
STRUCTURE OF COMPLEXES OF BIVALENT COPPER WITH PHENANTHROLINE IN AQUEOUS NEUTRAL  
MEDIA USING ELECTRON-PARAMAGNETIC-RES DATA  
TEORETICHESKAYA I EKSPERIMENTALNAYA KHIMIYA 22(1), 99-102 (1986)
111. HADZHIEVA, FS; ANUFRIENKO, VF; YURIEVA, TM; VOROBIEV, VN; MINYUKOVA, TP.  
ELECTRON SPECTROSCOPIC STUDIES OF COPPER IN CATALYSTS FOR METHANOL SYNTHESIS  
REACTION KINETICS AND CATALYSIS LETTERS 30(1), 85-92 (1986)
112. KALININA, NG; POLUBOYAROV, VA; ANUFRIENKO, VF; IONE, KG.  
FEATURES OF THE ELECTRON-PARAMAGNETIC-RES SPECTRA FOR TYPE ZSM ZEOLITES COKED BY  
ETHYLENE  
KINETICS AND CATALYSIS 27(1), 215-218 (1986)
113. KALININA, NG; RYABOV, YV; KOROBITSYNA, LL; POLUBOYAROV, VA; EROFEEV, VI; KURINA, LN;  
ANUFRIENKO, VF.  
ELECTRON-PARAMAGNETIC-RES SPECTRA OF COKE DEPOSITS ON ZEOLITE CATALYSTS FOR THE  
METHANOL CONVERSION  
KINETICS AND CATALYSIS 27(1), 219-221 (1986)
114. KALININA, NG; POLUBOYAROV, VA; KURINA, LN; ANUFRIENKO, VF; KLYUEVA, NV.  
INVESTIGATION OF ION-Fe(III) STATES BY THE ELECTRON-PARAMAGNETIC-RES METHOD IN IRON-  
CONTAINING ZEOLITES  
IZVESTIYA VYSSHIKH UCHEBNYKH ZAVEDENII KHIMIYA I KHIMICHESKAYA TEKHNOLOGIYA 29(7), 69-  
74 (1986)
115. POLUBOYAROV, VA; GADZHIEVA, FS; ANUFRIENKO, VF.  
INVESTIGATION OF THE INTERACTION OF THIONYL CHLORIDE AND ANTIMONY PENTACHLORIDE  
WITH DISPERSED CUO ACCORDING TO ELECTRON-SPIN-RESONANCE DATA  
KINETICS AND CATALYSIS 26(3), 649-653 (1985)
116. POLUBOYAROV, VA; ANUFRIENKO, VF; KALININA, NG; VOSEL, SV.  
POSSIBILITY OF THE FORMATION OF HOLE-CENTERS IN DISPERSED OXIDE STRUCTURES  
KINETICS AND CATALYSIS 26(3), 653-655 (1985)
117. POLUBOYAROV, VA; NESTEROV, GA; ZAKHAROV, VA; ANUFRIENKO, VF.  
THE FORMATION OF COMPLEXES OF MOLECULAR NITROGEN WITH SURFACE BENZYL AND HYDRIDE  
COMPOUNDS OF TI-3+  
DOKLADY AKADEMII NAUK 280(3), 666-669 (1985)
118. ANUFRIENKO, VF; YURIEVA, TM; HADZHIEVA, FS; MINYUKOVA, TP; BURYLIN, SY.  
SPECTROSCOPIC STUDIES OF THE STATE OF CU-2+ IONS IN CU-ZN-AL OXIDE CATALYSTS  
REACTION KINETICS AND CATALYSIS LETTERS 27(1), 201-205 (1985)
119. MIKHAILOV, VA; POMOSHCHNIKOV, EE; VOSEL, SV; MAKAROVA, IV; VASENIN, NT; MAKAROV, EP;  
ERJOMENKO, SI; DULEPOV, EV; ANUFRIENKO, VF.  
INVESTIGATION OF PHYSICAL AND CHEMICAL-PROPERTIES OF MECHANICALLY-ACTIVATED  
TUNGSTEN CONCENTRATES

- IZVESTIYA AKADEMII NAUK (4), 29-34 (1985)
120. TRETYAKOV, VP; CHUDAEV, VV; RUDAKOV, ES; ANUFRIENKO, VF; POLUBOYAROV, VA; RYABTSEVA, NV.  
SELECTIVITY OF ALIPHATIC-ALCOHOLS INTERACTION WITH PHENANTHROLINE COPPER-COMPLEXES IN AQUEOUS-ALKALINE SOLUTIONS  
UKRAINSKII KHIMICHESKII ZHURNAL 51(1), 10-13 (1985)
121. POLUBOYAROV, VA; ANUFRIENKO, VF; ZAKHAROV, VA; SERGEEV, SA; MAKHTARULIN, SI; BUKATOV, GD.  
ELECTRON-SPIN-RESONANCE STUDIES OF THE STATE OF TI-3+ AND TI-2+ IN TI-MG CATALYSTS FOR OLEFIN POLYMERIZATION  
REACTION KINETICS AND CATALYSIS LETTERS 26(3-4), 347-351 (1984)
122. POLUBOYAROV, VA; NEDOREZOVA, PM; ANUFRIENKO, VF; DIACHKOVSKII, FS; TSVETKOVA, VI; ZAKHAROV, VA.  
ELECTRON-SPIN-RESONANCE STUDIES OF TI-3+ COMPLEXES FORMED IN THE CATALYTIC-SYSTEM  $TiCl_2(ACAC)_1 + Et_2AlCl$  AND THEIR INTERACTION WITH ETHYLENE, CARBON-MONOXIDE AND PYRIDINE  
REACTION KINETICS AND CATALYSIS LETTERS 26(3-4), 245-251 (1984)
123. POTAPOV, GP; KAZAKOVA, EI; POLUBOYAROV, VA; ANUFRIENKO, VF.  
ELECTRON-SPIN-RESONANCE STUDIES OF COORDINATION STATE OF DIVALENT COPPER IONS ANCHORED TO POLYMERIC SUPPORTS  
REACTION KINETICS AND CATALYSIS LETTERS 25(3-4), 237-241 (1984)
124. RUDAKOV, ES; KUCHERENKO, VA; ANUFRIENKO, VF; POLUBOYAROV, VA; SAPUNOV, VA.  
ACTIVATION MECHANISM OF CARBONS OF LOW AND HIGH STAGES OF METAMORPHISM DURING THEIR OXIDATION IN CARBON-KON-O<sub>2</sub> SYSTEMS  
UKRAINSKII KHIMICHESKII ZHURNAL 50(2), 194-197 (1984)
125. ZAKHAROV, VA; MAKHTARULIN, SI; POLUBOYAROV, VA; ANUFRIENKO, VF.  
STUDY OF THE STATE OF TITANIUM IONS AND THE COMPOSITION OF THE ACTIVE COMPONENT IN TITANIUM-MAGNESIUM CATALYSTS FOR ETHYLENE POLYMERIZATION  
MACROMOLECULAR CHEMISTRY AND PHYSICS 185(9), 1781-1793 (1984)
126. ANUFRIENKO, VF; POLUBOYAROV, VA; VOSTRIKOVA, LA; IONE, KG.  
SPECIFICITY OF STATES OF CU-2+ IONS IN ZSM ZEOLITES DUE TO THE COOPERATIVE JAHN-TELLER EFFECT  
REACTION KINETICS AND CATALYSIS LETTERS 25(1-2), 39-43 (1984)
127. RAVILOV, RG; SHKLYAEV, AA; VASILIEVA, LM; ANUFRIENKO, VF.  
REASONS OF IRREVERSIBLE ABSORPTION OF OXYGEN BY MINERALIZED COALS  
IZVESTIYA AKADEMII NAUK (4), 127-131 (1984)
128. MAKHTARULIN, SI; ZAKHAROV, VA; MAKSIMOV, NG; MOROZ, EM; ANUFRIENKO, VF.  
INVESTIGATION OF THE PROCESS OF FORMING AN ACTIVE COMPONENT IN TITANIUM MAGNESIUM CATALYSTS FOR ETHYLENE POLYMERIZATION  
KINETICS AND CATALYSIS 25(2), 366-371 (1984)
129. ZENKOVETS, GA; OLENKOVA, IP; TARASOVA, DV; GADZHIEVA, FS; OVSYANNIKOVA, IA; ANUFRIENKO, VF; IKORSKII, VI.  
STABILIZATION OF CU-2+ IN TITANIUM-DIOXIDE IN THE PRESENCE OF ANTIMONY IONS  
INORGANIC MATERIALS 20(9), 1313-1316 (1984)
130. SOLOZHENKIN, PM; ANUFRIENKO, VF; KOPITSIA, NI; POLUBOYAROV, VA; SHVENGLER, FA; IVANOV, AV.  
THE FORMATION OF COPPER(II) BIS-(DIETHYLDITHIOCARBAMATE) ADDUCTS  
DOKLADY AKADEMII NAUK 274(6), 1420-1422 (1984)
131. RUDAKOV, ES; KUCHERENKO, VA; POLUBOYAROV, VA; ANUFRIENKO, VF; SAPUNOV, VA.  
DETECTION OF WIDE EPR-SIGNALS OF HIGH-GRADE COALS ACTIVATED BY POTASSIUM HYDROXIDE  
DOPOVIDI AKADEMII NAUK UKRAINSKOI RSR SERIYA B-GEOLOGICHNI KHIMICHNI TA BIOLOGICHNI NAUKI (10), 60-63 (1983)
132. KRAVETS, GA; SHOKHIREVA, TK; ANUFRIENKO, VF; YURIEVA, TM.  
STUDIES OF MOLYBDENUM IN MO-TI OXIDE CATALYSTS

- REACTION KINETICS AND CATALYSIS LETTERS 19(1-2), 95-99 (1982)
133. KRAVETS, GA; SHOKHIREVA, TK; ANUFRIENKO, VF; YURIEVA, TM.  
ELECTRON-SPIN-RESONANCE STUDIES OF MOLYBDENUM IN TI-MO HETEROPOLY ACID SUPPORTED ON TiO<sub>2</sub>  
REACTION KINETICS AND CATALYSIS LETTERS 19(1-2), 85-89 (1982)
134. CHUMACHENKO, NN; GADZHIEVA, FS; TARASOVA, DV; ANUFRIENKO, VF; OLENKOVA, IP.  
CHARACTERISTICS OF SILICOMOLYBDENUM HETEROPOLYACID THERMAL-DECOMPOSITION  
ZHURNAL NEORGANICHESKOI KHIMII 27(12), 3084-3088 (1982)
135. POLUBOYAROV, VA; ANUFRIENKO, VF.  
SPECTRUM-THERMODYNAMIC METHOD FOR INVESTIGATION OF COMPLEX VANADYLPORPHYRIN MIXTURES  
IZVESTIYA AKADEMII NAUK (5), 109-115 (1982)
136. GADZHIEVA, FS; ANUFRIENKO, VF.  
CHARACTERISTICS FEATURES OF THE STATE OF D<sub>1</sub> IONS IN THE SITES AND INTERSTITIAL POSITIONS OF THE RUTILE STRUCTURE FROM ELECTRON-PARAMAGNETIC-RES DATA  
JOURNAL OF STRUCTURAL CHEMISTRY 23(5), 686-691 (1982)
137. ZENKOVETS, GA; TARASOVA, DV; ANUFRIENKO, VF; PAUKSHTIS, EA; KHOMICHEVA, SY; OLENKOVA, IP; NIKORO, TA.  
SYNTHESIS AND PROPERTIES OF CATALYSTS PRODUCED BY SORPTION OF Fe-3+ IONS BY HYDRATED ANTIMONY PENTOXIDE  
KINETICS AND CATALYSIS 23(4), 832-836 (1982)
138. GADZHIEVA, FS; BORESKOV, GK; ANUFRIENKO, VF.  
PECULIARITIES OF SUBSTITUTIONAL AND INTERSTITIAL Mo-5+ IONS OF MOLYBDENUMTITANIUM OXIDE CATALYSTS ACCORDING TO THE ELECTRON-SPIN-RESONANCE DATA  
DOKLADY AKADEMII NAUK 265(3), 638-641 (1982)
139. RACHKOVSKAYA, LN; MOROZ, EM; ANUFRIENKO, VF; RAVILOV, RG; LEVITSKII, EA; ZAIKOVSKII, VI; KRIKSINA, TM.  
PHYSICO-CHEMICAL STUDY OF CARBON-CONTAINING ADSORBENTS ON THE BASIS OF GAMMA-AL<sub>2</sub>O<sub>3</sub>  
IZVESTIYA AKADEMII NAUK (5), 34-40 (1982)
140. DAVYDOVA, LP; BORESKOV, GK; POPOVSKII, VV; YURIEVA, TM; ANUFRIENKO, VF.  
STATE OF COPPER IONS, BOND-ENERGY OF OXYGEN AND CATALYTIC PROPERTIES IN HYDROGEN OXIDATION FOR A COPPER-MAGNESIUM SYSTEM  
REACTION KINETICS AND CATALYSIS LETTERS 18(1-2), 203-207 (1981)
141. KETCHIK, SV; PLYASOVA, LM; RIKHTER, KG; MILOVA, LP; ZAIDMAN, NM; ANUFRIENKO, VF; RAVILOV, RG.  
THE STRUCTURE OF UNCRYSTALLIZED MOLYBDENUM COMPOUNDS IN DEPOSITED ALUMINOMOLYBDENUM CATALYSTS  
INORGANIC MATERIALS 17(1), 116-119 (1981)
142. MAKSIMOV, NG; ANUFRIENKO, VF; YURIEVA, TM; SHOKHIREVA, TK; CHUMACHENKO, NN.  
ELECTRON-SPIN-RESONANCE STUDIES OF THE STATE OF MOLYBDENUM IN SILICA-MOLYBDENUM OXIDE CATALYSTS  
REACTION KINETICS AND CATALYSIS LETTERS 14(1), 93-97 (1980)
143. SELIUTIN, GE; SHKLIAEV, AA; ANUFRIENKO, VF.  
ESR-SPECTRA OF OXIDATED FORMS OF OXOVANADIUM  
DOKLADY AKADEMII NAUK 255(2), 390-393 (1980)
144. BOGUSLAVSKII, EG; SHKLIAEV, AA; MAXIMOV, NG; ANUFRIENKO, VF.  
ESR-SPECTRA OF BINUCLEAR COMPLEXES BASED ON COPPER(II) CARBAMATES  
DOKLADY AKADEMII NAUK 253(4), 899-901 (1980)
145. SHKLIAEV, AA; RAVILOV, RG; VASILIEVA, LA; ANUFRIENKO, VF.  
EFFECT OF METALS AND HALOGEN ADSORPTION ON THE WIDTH OF ELECTRON-SPIN-RESONANCE SIGNALS OF ANTHRACITE AND PYROLYZED COKE  
DOKLADY AKADEMII NAUK 252(1), 159-162 (1980)

146. BOGUSLAVSKII, EG; SHKLIAEV, AA; MAXIMOV, NG; BORESKOV, GK; KOLOMNIKOV, IS; ANUFRIENKO, VF.  
ON FEATURES OF REVERSIBLE FIXATION OF CO<sub>2</sub> BY COPPER(II) AMINE COMPLEXES  
DOKLADY AKADEMII NAUK 251(4), 904-907 (1980)
147. GORSHKOVA, TP; TARASOVA, DV; OLENKOVA, IP; MAKSIMOV, NG; ANUFRIENKO, VF.  
INFLUENCE OF SILICA ON THE PHASE-COMPOSITION OF VANADIUM-MOLYBDENUM OXIDE CATALYSTS  
REACTION KINETICS AND CATALYSIS LETTERS 12(4), 509 (1979)
148. ISMAILOV, EG; ZULFUGAROV, ZG; ANUFRIENKO, VF; MAKSIMOV, NG; SOKOLOVSKII, VD.  
EFFECT OF REDUCTANT ADSORPTION ON THE ESR PARAMETERS OF O-2(-) ION-RADICALS SUPPORTED ON ZINC-OXIDE  
REACTION KINETICS AND CATALYSIS LETTERS 10(3), 255 (1979)
149. SELIUTIN, GE; MAKSIMOV, NG; ZENKOVETS, GA; TARASOVA, DV; ANUFRIENKO, VF.  
ESR INVESTIGATION OF VANADIUM-MOLYBDENUM OXIDE CATALYSTS  
REACTION KINETICS AND CATALYSIS LETTERS 10(1), 25 (1979)
150. RAVILOV, RG; SHKLYAEV, AA; VASILEVA, LM; ANUFRIENKO, VF.  
AN ELECTRON-SPIN-RESONANCE STUDY OF THE ADSORPTION OF OXYGEN AND NITRIC-OXIDE ON THE FUSAIN AND VITRAIN FRACTIONS OF ANTHRACITE COALS  
CHEMICAL SCIENCE-BULLETIN 28(7), 1353 (1979)
151. ISMAILOV, EG; ZULFUGAROV, ZG; MAXIMOV, NG; ANUFRIENKO, VF.  
ESR OF CU<sup>2+</sup> IONS IN TiO<sub>2</sub> - 2 STATES OF CU<sup>2+</sup> IONS IN RUTILE  
DOKLADY AKADEMII NAUK 244(2), 392 (1979)
152. MAKSIMOV, NG; NESTEROV, GA; ZAKHAROV, VA; ANUFRIENKO, VF; YERMAKOV, YI.  
INTERACTION OF ETHYLENE WITH TI(III) IONS IN SUPPORTED ORGANO-TITANIUM CATALYSTS  
REACTION KINETICS AND CATALYSIS LETTERS 8(1), 81 (1978)
153. MAKSIMOV, NG; NESTEROV, GA; ZAKHAROV, VA; STCHASTNEV, PV; ANUFRIENKO, VF; YERMAKOV, YI.  
ESR STUDY OF STATE OF TI(III) IONS IN SUPPORTED ORGANO-TITANIUM CATALYSTS FOR ETHYLENE POLYMERIZATION  
JOURNAL OF MOLECULAR CATALYSIS 4(3), 167 (1978)
154. MAKSIMOV, NG; DUDCHENKO, VK; ANUFRIENKO, VF; ZAKHAROV, VA; ERMAKOV, YI.  
FORMATION OF ZR<sup>3+</sup> COMPOUNDS IN APPLIED ORGANOZIRCONIUM CATALYSTS AND THEIR ROLE IN THE POLYMERIZATION OF ETHYLENE  
THEORETICAL AND EXPERIMENTAL CHEMISTRY 14, 40 (1978)
155. ISMAILOV, EG; MAKSIMOV, NG; ANUFRIENKO, VF; SOKOLOVSKII, VD.  
INFLUENCE OF PRE-ADSORPTION OF PROPYLENE AND CARBON-MONOXIDE ON FORMATION OF O<sub>2</sub>BAR ION-RADICALS ON CERIC OXIDE  
REACTION KINETICS AND CATALYSIS LETTERS 7(1), 99 (1977)
156. ZAKHAROV, VA; VERMEL, YY; ARTAMONOVA, SG; ZHDAN, PA; MAXIMOV, N G; ANUFRIENKO, VF; MASTIKHIN, VM; PANCRATIEV, YD.  
A STUDY OF THE FORMATION OF TITANIUM TRICHLORIDE. A CATALYST FOR STEREOSPECIFIC POLYMERIZATION OF PROPYLENE  
STUDIES IN SURFACE SCIENCE AND CATALYSIS 1, 673 (1976)
157. MAKSIMOV, NG; ANUFRIENKO, VF.  
STATE AND DISTRIBUTION OF CU(II) IONS IN OXIDES OF CUBIC STRUCTURE-MGO, CDO, AND CAO- ACCORDING TO ESR DATA  
DOKLADY AKADEMII NAUK 228(6), 1391 (1976)
158. BOBROV, NN; DAVYDOV, AA; MAKSIMOV, NG; IONE, KG; ANUFRIENKO, VF.  
PECULIARITIES OF INTERACTION OF CO WITH COPPER CATIONS IN ZEOLITES ACCORDING TO DATA OF ESR AND IR-SPECTRA  
CHEMICAL SCIENCE-BULLETIN 24(4), 672 (1975)
159. VERMEL, EE; MAKSIMOV, NG; MASTIKHIN, VM; ARTAMONOVA, SG; ANUFRIENKO, VF; ZAKHAROV, VA.  
INVESTIGATION OF PROCESS OF FORMATION OF TICL<sub>3</sub> AS A CATALYST OF POLYMERIZATION OF

- OLEFINS .2. STUDY OF INTERACTION OF  $TiCl_4$  WITH ORGANOALUMINUM COMPOUNDS BY NMR AND ESR METHODS  
KINETICS AND CATALYSIS 16(4), 877 (1975)
160. ISMAILOV, EG; ANUFRIENKO, VF; MAKSIMOV, NG; SOKOLOVSKII, VD.  
FORMATION OF ALLYL RADICALS IN ADSORPTION OF PROPYLENE ON ZINC-OXIDE  
REACTION KINETICS AND CATALYSIS LETTERS 3(3), 301 (1975)
161. YABROV, AA; ISMAILOV, EG; BORESKOV, GK; IVANOV, AA; ANUFRIENKO, VF.  
ESR STUDIES ON FORMATION AND STRUCTURE OF A VANADIUM-TITANIUM OXIDE CATALYST FOR  
ORTHO-XYLENE OXIDATION UNDER INFLUENCE OF REACTION MEDIUM  
REACTION KINETICS AND CATALYSIS LETTERS 3(3), 237 (1975)
162. SHINKARENKO, VG; ANUFRIENKO, VF; BORESKOV, GK; IONE, KG; YUREVA, TM.  
STUDY OF DIVALENT COPPER STATE IN SOME OXIDE CATALYSTS BY METHOD OF DIFFUSION  
REFLECTION SPECTROSCOPY  
DOKLADY AKADEMII NAUK 223(2), 410 (1975)
163. ZAKHAROV, VA; ZHDAN, PA; VERMEL, EE; ARTAMONOVA, SG.  
INVESTIGATION OF FORMATION OF  $TiCl_3$  AS A CATALYST OF POLYMERIZATION OF OLEFINS .3.  
STUDY OF RELATIONSHIP BETWEEN STRUCTURE OF  $TiCl_3$  AND ITS ACTIVITY IN POLYMERIZATION  
OF PROPYLENE  
KINETICS AND CATALYSIS 16(5), 1024 (1975)
164. MAKSIMOV, NG; KUSHNAREVA, EG; ZAKHAROV, VA; ANUFRIENKO, VF; ZHDAN, PA; YERMAKOV, YI.  
A STUDY OF SUPPORTED TITANIUM CATALYSTS FOR OLEFINE POLYMERIZATION. II THE STATE OF TI  
IONS IN SUPPORTED CATALYSTS ACCORDING TO ESR DATA  
KINETICS AND CATALYSIS 15, 738 (1974)
165. SOKOLOVSKII, VD; BORESKOV, GK; DAVYDOV, AA; GUNDRIZER, TA; ANUFRIENKO, VF; ISMAILOV,  
EG; BUDNEVA, AA; MAKSIMOV, NG.  
CONJUGATION OF CATALYST OXIDATION-REDUCTION PROCESSES AS A CAUSE OF APPEARANCE OF  
MECHANISM WITH LOW ACTIVATION-ENERGY IN REACTION OF CO OXIDATION ON ZINC-OXIDE  
DOKLADY AKADEMII NAUK 216(3), 599 (1974)
166. ДАВЫДОВ, АА; КОМАРОВА, МП; АНУФРИЕНКО, ВФ; МАКСИМОВ, НГ.  
ИЗУЧЕНИЕ АДСОРБЦИИ КИСЛОРОДА НА ВОССТАНОВЛЕННОЙ ДВУОКИСИ ТИТАНА МЕТОДАМИ  
ИК-СПЕКТРОСКОПИИ И ЭПР  
КИНЕТИКА И КАТАЛИЗ 14(6), 1519-1525 (1973)
167. СОКОЛОВСКИЙ, ВД; БОРЕСКОВ, ГК; ОСИПОВА, ЗГ; МАКСИМОВ, НГ; АНУФРИЕНКО, ВФ;  
ДАВЫДОВ, АА; КОМАРОВА, МП.  
РЕАКЦИОННАЯ СПОСОБНОСТЬ МОЛЕКУЛЯРНЫХ ФОРМ АДСОРБИРОВАННОГО КИСЛОРОДА НА  
ПОВЕРХНОСТИ ДВУОКИСИ ТИТАНА  
ТЕОРЕТИЧЕСКАЯ И ЭКСПЕРИМЕНТАЛЬНАЯ ХИМИЯ 9(4), 540-544 (1973)
168. ВАСИЛЬЕВА, ЛМ; ШКЛЯЕВ, АА; АНУФРИЕНКО, ВФ.  
ВЛИЯНИЕ МИНЕРАЛЬНЫХ ПРИМЕСЕЙ И АДСОРБЦИИ КИСЛОРОДА НА СПЕКТРЫ Э.П.Р.  
ПИРОЛИЗОВАННОГО УГЛЯ  
ДОКЛАДЫ АКАДЕМИИ НАУК 212(6), 1360-1363 (1973)
169. МАКСИМОВ, НГ; АНУФРИЕНКО, ВФ; ИОНЕ, КГ.  
ИЗУЧЕНИЕ МЕТОДОМ Э.П.Р. ВЗАИМОДЕЙСТВИЯ ИОНОВ  $Cu^{2+}$  С АММИАКОМ В  $CuY$ -ЦЕОЛИТАХ  
ДОКЛАДЫ АКАДЕМИИ НАУК 212(1), 142-145 (1973)
170. SHKLYAEV, AA; ANUFRIENKO, VF; OGORODNIKOV, VD.  
ELECTRON-SPIN RESONANCE METHOD OF STUDYING ADDUCTS OF PLANE COPPER-COMPLEXES  
ZHURNAL STRUKTURNOI KHIMII 14(6), 994 (1973)  
[SHKLYAEV, AA; ANUFRIENKO, VF; OGORODNIKOV, VD.  
ESR INVESTIGATION OF THE ADDUCTS OF PLANAR COPPER COMPLEXES  
JOURNAL OF STRUCTURAL CHEMISTRY 14(6), 938-945 (1974)]
171. ANUFRIENKO, VF; MAKSIMOV, NG; SCHASTNEV, PV; GUNDRIZER, TA; TARASOVA, DV.  
ESR-SPECTRA OF  $O_2$ -ION-RADICALS ON  $SrO_2$  - NEW FORM OF ADSORBED OXYGEN  
DOKLADY AKADEMII NAUK 209(2), 372-375 (1973)
172. ШИРИКОВ, НГ; АНУФРИЕНКО, ВФ; САЗОНОВ, ЛА.

- ИССЛЕДОВАНИЕ ПАРАМАГНИТНЫХ ЦЕНТРОВ В Г-ОБЛУЧЕННОЙ ОКИСИ АЛЮМИНИЯ  
ДОКЛАДЫ АКАДЕМИИ НАУК 208(4), 902-905 (1973)
173. МАКСИМОВ, НГ; АНУФРИЕНКО, ВФ; ИОНЕ, КГ; ШЕСТАКОВА, НА.  
СПЕКТРЫ ЭПР И СОСТОЯНИЕ ИОНОВ МЕДИ В CUNAY-ЦЕОЛИТАХ  
ЖУРНАЛ СТРУКТУРНОЙ ХИМИИ 13(6), 1020-1025 (1972)
174. ШКЛЯЕВ, АА; ГУМЕРОВ, ФМ; АНУФРИЕНКО, ВФ.  
ИЗУЧЕНИЕ ШИРИНЫ ЛИНИЙ СПЕКТРОВ ЭПР ДИЭТИЛДИТИОКАРБАМАТА МЕДИ (II) В РАСТВОРЕ  
ЖУРНАЛ СТРУКТУРНОЙ ХИМИИ 13(3), 406-412 (1972)
175. SHKLYAEV, AA; GUMEROV, FM; ANUFRIENKO, VF.  
A STUDY OF THE LINE WIDTHS IN THE ESR SPECTRA OF COPPER (II) DIETHYLDITHIOCARBAMATE IN SOLUTION  
JOURNAL OF STRUCTURAL CHEMISTRY 13(3), 381-386 (1972)
176. МАКСИМОВ, НГ; МИХАЙЛОВА, ИЛ; АНУФРИЕНКО, ВФ.  
СПЕКТРЫ ЭПР И СОСТОЯНИЕ ИОНОВ  $Fe^{3+}$  В  $TiO_2$   
КИНЕТИКА И КАТАЛИЗ 13(5), 1303-1306 (1972)
177. МАКСИМОВ, НГ; ЧИГРИНА, ВА; БОРЕСКОВ, ГК; АНУФРИЕНКО, ВФ; ЮРЬЕВА, ТМ.  
ИЗУЧЕНИЕ СОСТОЯНИЯ МЕДИ В ОКИСНОМ МЕДНОМАГНИЕВОМ КАТАЛИЗАТОРЕ МЕТОДОМ ЭПР  
КИНЕТИКА И КАТАЛИЗ 13(2), 446-453 (1972)
178. ZAMOTRINSKAYA, EA; TORGASHINOVA, LA; ANUFRIENKO, VF.  
THE NATURE OF 'HOLE' CENTRES IN IRRADIATED ALKALI-SILICATE GLASSES  
IZVESTIYA AKADEMII NAUK 8(6), 1136 (1972)
179. ШУЛЬМАН, ВМ; САВЕЛЬЕВА, ЗА; ЧЕРЕМИСИНА, ИМ; ВАСИЛЬЕВ, ЯВ; АНУФРИЕНКО, ВФ.  
СИНТЕЗ И СВОЙСТВА КОМПЛЕКСОВ МЕДИ(II) И ЗОЛОТА(III) С N,N/-ДИФЕНИЛТИОМОЧЕВИНОЙ  
ИЗВЕСТИЯ АКАДЕМИИ НАУК (1), 77 (1972)
180. СОКОЛОВСКИЙ, ВД; БОРЕСКОВ, ГК; ОСИПОВА, ЗГ; МАКСИМОВ, НГ; АНУФРИЕНКО, ВФ.  
О РЕАКЦИОННОСПОСОБНЫХ ФОРМАХ КИСЛОРОДА НА ПОВЕРХНОСТИ НАНЕСЕННЫХ ТИТАНОСИЛИКАТНЫХ КАТАЛИЗАТОРОВ  
ДОКЛАДЫ АКАДЕМИИ НАУК 207(6), 1398-1401 (1972)
181. ШКЛЯЕВ А.А., АНУФРИЕНКО В.Ф., БЕРУС Е.И., МОЛИН Ю.Н.  
РАДИОСПЕКТРОСКОПИЧЕСКОЕ ИССЛЕДОВАНИЕ КООРДИНАЦИОННЫХ ПЕРЕСТРОЕК КОМПЛЕКСОВ МЕДИ ПРИ ВЗАИМОДЕЙСТВИИ С ОСНОВАНИЯМИ  
ДОКЛАДЫ АКАДЕМИИ НАУК 207(1), 138-141 (1972)
182. ШКЛЯЕВ, АА; АНУФРИЕНКО, ВФ.  
ВЛИЯНИЕ ВЗАИМОДЕЙСТВИЯ КОМПЛЕКСОВ МЕДИ С РАСТВОРИТЕЛЕМ НА СПЕКТРЫ Э.П.Р. В РАСТВОРЕ  
ДОКЛАДЫ АКАДЕМИИ НАУК 201(5), 1154-1157 (1971)
183. БОРЕСКОВ, ГК; БОБРОВ, Н; МАКСИМОВ, ЯГ; АНУФРИЕНКО, В; ИОНЕ, КГ; ШЕСТАКОВА, НА.  
КАТАЛИТИЧЕСКАЯ АКТИВНОСТЬ МЕДЬСОДЕРЖАЩИХ ЦЕОЛИТОВ В ОТНОШЕНИИ РЕАКЦИИ ОКИСЛЕНИЯ СО  
ДОКЛАДЫ АКАДЕМИИ НАУК 201(4), 887-890 (1971)
184. SHKLYAEV, AA; ANUFRIENKO, VF; VASILEVA, LM.  
STUDY OF OXYGEN ADSORPTION ON ANTHRACITE FUSAIN BY ESR METHOD  
DOKLADY AKADEMII NAUK 200(5), 1165-1168 (1971)
185. ANUFRIENKO, VF; SHKLYAEV, AA.  
STUDY OF EQUILIBRIUM AND LIGAND EXCHANGE FOR  $Cu(II)$  ACETYLACETONATE BY ESR AND CHEMICAL EXCHANGE METHOD  
DOKLADY AKADEMII NAUK 196(4), 844 (1971)
186. ANUFRIENKO, VF; YANDRALOVA, LG; TARASOVA, DV.  
EPR SPECTRA AND THE STATE OF  $Fe^{3+}$  IONS IN  $SrO_2$   
FIZIKA TVERDOGO TELA 13(8), 2353-2356 (1971)
187. ШКЛЯЕВ, АА; АНУФРИЕНКО, ВФ.  
ВЛИЯНИЕ ОБМЕНА ЛИГАНДАМИ НА СПЕКТРЫ ЭПР КОМПЛЕКСА ДИЭТИЛДИТИОКАРБАМАТА  $Cu(II)$



- ЖУРНАЛ СТРУКТУРНОЙ ХИМИИ 12(4), 601-608 (1971)
188. SHKLYAEV, AA; ANUFRIENKO, VF.  
EFFECT OF LIGAND EXCHANGE ON THE EPR SPECTRA OF THE CUPRIC DIETHYLDITHIOCARBAMATE COMPLEX  
JOURNAL OF STRUCTURAL CHEMISTRY 12(4), 548-554 (1971)
189. АНУФРИЕНКО, ВФ; ЧИСТАНОВА, СТ; КУРИНА, ЛН.  
ИССЛЕДОВАНИЕ ОКИСНОВАНАДИЕВЫХ КАТАЛИЗАТОРОВ МЕТОДОМ ЭПР  
КИНЕТИКА И КАТАЛИЗ 11(5), 1303-1309 (1970)
190. KURINA, LN; EDISEEVA, ON; ANUFRIENKO, VF; CHISTANOVA, ST; SIMKIN, NM; ZOZULYA, VA.  
INVESTIGATION OF VANADIUM-CHROMIUM OXIDE CATALYSTS FOR THE OXIDATION OF METHANOL TO FORMALDEHYDE I  
КИНЕТИКА И КАТАЛИЗ 11(3), 753 (1970)  
[KURINA, LN; EDISEEVA, ON; ANUFRIENKO, VF; CHISTANOVA, ST; SIMKIN, NM; ZOZULYA, VA.  
VANADIUM-CHROMIUM OXIDE CATALYSTS OF THE OXIDATION OF METHANOL TO FORMALDEHYDE-1  
KINETICS AND CATALYSIS 11(3-2), 614-618 (1970)]
191. АНУФРИЕНКО, ВФ; ШКЛЯЕВ, АА.  
ОБМЕН ЛИГАНДАМИ В РАСТВОРАХ КОМПЛЕКСОВ МЕДИ И ЕГО ВЛИЯНИЕ НА СПЕКТРЫ Э.П.Р  
ДОКЛАДЫ АКАДЕМИИ НАУК 191(1), 107-110 (1970)
192. STARICHENKO, VF; KATKOVA, NM; ANUFRIENKO, VF; SHEIN, SM.  
ELECTRON PARAMAGNETIC RESONANCE OF PARA SUBSTITUTED NITROBENZENES IN DIMETHYL SULFOXIDE  
ZHURNAL STRUKTURNOI KHIMII 11(4), 768-770 (1970)  
[STARICHENKO, VF; KATKOVA, NM; ANUFRIENKO, VF; SHEIN, SM.  
EPR OF ANION RADICALS OF PARA-SUBSTITUTED NITROBENZENES IN DIMETHYLSULFOXIDE  
JOURNAL OF STRUCTURAL CHEMISTRY 11(4), 710-712 (1970)]
193. ANUFRIENKO, VF; TARASOVA, DV; SHKLYAEV, AA.  
ESR SPECTRA AND SYMMETRY OF FE<sup>3+</sup> IONS IN ANTIMONY OXIDES  
DOKLADY AKADEMII NAUK 191(2), 377-379 (1970)
194. ANUFRIENKO, VF; МАМАЕВА, ЕК; RUKHADZE, EG; IL'INA, IG.  
ESR SPECTRA OF COPPER COMPOUNDS OF A-THIOPICOLINE ANILIDES  
THEORETICAL AND EXPERIMENTAL CHEMISTRY 3, 204-207 (1969)
195. ANUFRIENKO, VF; KOGAN, TM; RUKHADZE, EG; DUNINA, VV; DROBYSHEVSKAYA, EV.  
ESR SPECTRA OF CU(II) N-ALKYLDITHIOCARBAMATES  
THEORETICAL AND EXPERIMENTAL CHEMISTRY 3(3), 208-210 (1969)
196. МАШКИНА, АВ; АВДЕЕВА; ЛБ; АНУФРИЕНКО, ВФ.  
ИССЛЕДОВАНИЕ РЕАКЦИИ ЖИДКОФАЗНОГО ОКИСЛЕНИЯ ДИБУТИЛСУЛЬФИДА В ПРИСУТСТВИИ ОКИСЛОВ ВАНАДИЯ  
КИНЕТИКА И КАТАЛИЗ 10(3), 621-624 (1969)
197. ШЕЙН, СМ; СТАРИЧЕНКО, ВФ; КАТКОВА, НМ; АНУФРИЕНКО, ВФ.  
ВЛИЯНИЕ ЗАМЕСТИТЕЛЕЙ НА КОНСТАНТЫ СТ РАСЩЕПЛЕНИЯ ЭПР СПЕКТРОВ АНИОН-РАДИКАЛОВ ЗАМЕЩЕННЫХ НИТРОБЕНЗОЛОВ  
РЕАКЦИОННАЯ СПОСОБНОСТЬ ОРГАНИЧЕСКИХ СОЕДИНЕНИЙ 6(3), 692 (1969)
198. АЛЬТ, ЛЯ; АНУФРИЕНКО, ВФ; ТЮЛИКОВА, ТЯ; ЕРМАКОВ, ЮИ.  
О ВЛИЯНИИ РЯДА ПРИМЕСЕЙ НА СИГНАЛ ЭПР  
КИНЕТИКА И КАТАЛИЗ 9(6), 1253-1257 (1968)
199. МАКСИМОВСКАЯ, РИ; АНУФРИЕНКО, ВФ; КОЛОВЕРТНОВ, ГД.  
СПЕКТРЫ ЭПР ОКИСНОМОЛИБДЕНОВЫХ КАТАЛИЗАТОРОВ  
КИНЕТИКА И КАТАЛИЗ 9(5), 1186-1187 (1968)
200. ЕРМАКОВ, ЮИ; ИВАНОВ, ЛП; АЛЬТ, ЛЯ; ГЕЛЬБШТЕЙН, АИ; АНУФРИЕНКО, ВФ.  
ВЛИЯНИЕ СОСТАВА И УСЛОВИЙ АКТИВАЦИИ ОКИСНОХРОМОВОГО КАТАЛИЗАТОРА НА ЕГО КАТАЛИТИЧЕСКУЮ АКТИВНОСТЬ  
КИНЕТИКА И КАТАЛИЗ 9(2), 352-359 (1968)

201. ANUFRIENKO, VF; RUKHADZE, EG; TERENCEV, AP.  
NATURE OF A REMOTE DELOCALIZATION OF AN UNPAIRED ELECTRON IN ELECTRON-SPIN  
RESONANCE SPECTRA OF COPPER COMPLEXES  
DOKLADY AKADEMII NAUK 178(5), 1073-1076 (1968)
202. MESHCHERYAKOV, NA; AL'T, LY; ANUFRIENKO, VF.  
PARAMAGNETIC CENTRES IN SILICON POWDERS  
FIZIKA TVERDOGO TELA 9(12), 3379 (1967)
203. МИНЬКОВ, АИ; КЕЙЕР, НП; АНУФРИЕНКО, ВФ.  
ИССЛЕДОВАНИЕ МЕХАНИЗМА ОКИСЛЕНИЯ ИЗОПРОПИЛБЕНЗОЛА НА ФТАЛОЦИАНИНЕ МЕДИ  
КИНЕТИКА И КАТАЛИЗ 8(2), 387-392 (1967)
204. ANUFRIENKO, VF; KOGAN, TM; RUKHADZE, EG; DUNINA, VV; DOBRYSHVSKAYA, EV.  
EPR SPECTRA OF N-ALKYLDITHIOCARBAMATES OF COPPER (II)  
ТЕОРЕТИЧЕСКАЯ И ЭКСПЕРИМЕНТАЛЬНАЯ ХИМИЯ 3(3), 370-374 (1967)
205. АНУФРИЕНКО, ВФ; МАМАЕВА, ЕК; РУХАДЗЕ, ЕГ; ИЛЬИНА, ИГ.  
СПЕКТРЫ ЭПР ХЕЛАТОВ МЕДИ НА ОСНОВЕ А-ТИОПИКОЛИНАНИЛИДОВ  
ТЕОРЕТИЧЕСКАЯ И ЭКСПЕРИМЕНТАЛЬНАЯ ХИМИЯ 3(3), 363-369 (1967)
206. ANUFRIENKO, VF; ZEIF, AP.  
E.P.R. STUDY OF THE COVALENT BOND IN CU+2 ALPHA -THIOPICOLINANILIDE  
ОПТИКА И СПЕКТРОСКОПИЯ 20(4), 652 (1966)  
[ANUFRIENKO, VF; ZEIF, AP.  
EPR STUDY OF COVALENT BOND IN CU+2 ALPHA-THIOPICOLINANILIDE  
OPTICS AND SPECTROSCOPY 20(4), 365 (1966)]
207. ANUFRIENKO, VF; TERENCEV, AP; RUKHADZE, EG; ONUCHINA, AG.  
THE EPR SPECTRA OF PYRIDINE COMPLEXES OF COPPER (II)  
ТЕОРЕТИЧЕСКАЯ И ЭКСПЕРИМЕНТАЛЬНАЯ ХИМИЯ 2(3), 412 (1966)  
[ANUFRIENKO, VF; TERENCEV, AP; RUKHADZE, EG; ONUCHINA, AG.  
THE EPR SPECTRA OF PYRIDINE COMPLEXES OF COPPER (II)  
THEORETICAL AND EXPERIMENTAL CHEMISTRY 2(3), 313-315 (1966)]
208. АНУФРИЕНКО, ВФ; ЮРЧЕНКО, ЭН; КАЛИНИЧЕНКО, ИИ.  
ЭПР СПЕКТРЫ КОМПЛЕКСОВ МЕТАЛЛОВ С ФОРМАЗАНАМИ РЯДА БЕНЗИМИДАЗОЛА  
ЖУРНАЛ СТРУКТУРНОЙ ХИМИИ 7(5), 803-804 (1966)  
[ANUFRIENKO, VF; YURCHENKO, EN; KALINICHENKO, II.  
THE EPR SPECTRA OF METAL COMPLEXES WITH THE FORMAZANS OF A SERIES OF BENZIMIDAZOLES  
JOURNAL OF STRUCTURAL CHEMISTRY 7(5), 746-747 (1966)]
209. DOBRETSOVA, TB; ANUFRIENKO, VF.  
SOME RESULTS OF ANALYSIS OF THE E.P.R. SPECTRA OF WHEAT GERM IRRADIATED IN ANOXIC  
CONDITIONS  
БИОФИЗИКА 11(6), 1239-1241 (1966)
210. ДОБРЕЦОВА, ТБ; АНУФРИЕНКО, ВФ.  
АНАЛИЗ МЕТОДОМ ЭПР ПЕРВИЧНОГО ДЕЙСТВИЯ X-ЛУЧЕЙ НА СЕМЕНА ПШЕНИЦЫ  
БИОФИЗИКА 11(3), 530-532 (1966)  
[DOBRETSOVA, TB; ANUFRIENKO, VF.  
ANALYSIS BY THE E.P.R. METHOD OF THE PRIMARY ACTION OF X-RAYS ON WHEAT SEEDS  
БИОФИЗИКА 11(3), 604-606 (1966)]
211. ГЕРАСИМОВА, ГФ; АНУФРИЕНКО, ВФ; КЕЙЕР, НП.  
ИЗМЕНЕНИЕ СПЕКТРОВ ЭПР ПОЛИХЕЛАТНЫХ СОЕДИНЕНИЙ МЕДИ ПРИ ТЕРМИЧЕСКОЙ  
ОБРАБОТКЕ  
КИНЕТИКА И КАТАЛИЗ 7(6), 1078-1080 (1966)
212. ANUFRIENKO, VF; RUKHADZE, EG; PANOVA, GV; ONUCHINA, AG; TERENCEV, AP.  
ESR SPECTRA OF CHELATE COMPOUNDS OF COPPER WITH SALICYLALAZOMETHINES  
DOKLADY AKADEMII NAUK 171(3), 601-604 (1966)
213. ANUFRIENKO, VF; МАМАЕВА, ЕК; КЕЙЕР, НП.  
INVESTIGATION OF ESR SPECTRA OF CATALYTICALLY ACTIVE CHELATE COPPER COMPLEXES  
DOKLADY AKADEMII NAUK 168(1), 116-119 (1966)

214. ANUFRIENKO, VF; KEIER, NP; MAMAIEVA, EK; KEFELI, LM; RUKHADZE, EG; TERENCEV, AP.  
STUDY OF ELECTRON-SPIN-RESONANCE SPECTRA OF CUPRIC ALPHA-THIOPICOLINEANILIDE CU (2)  
DOKLADY AKADEMII NAUK 159(5), 1059-1061 (1964)