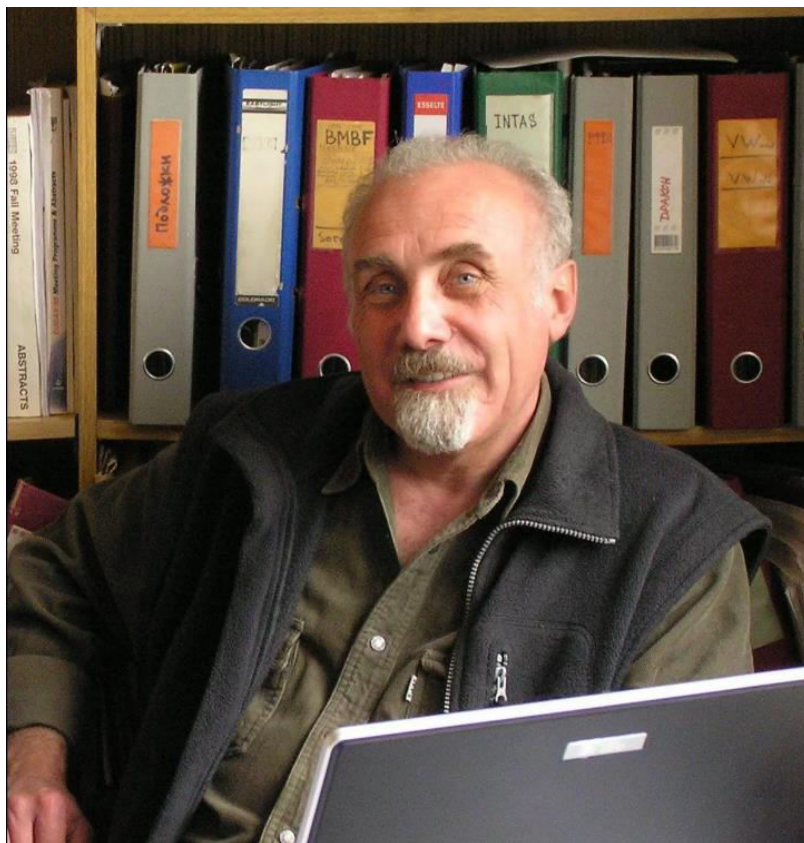


Аркадий Яковлевич Нейман



13 августа 1945 - 29 сентября 2014

29 сентября 2014 года ушел из жизни доктор химических наук, Почётный работник высшего профессионального образования Российской Федерации, профессор кафедры неорганической химии Уральского федерального университета Аркадий Яковлевич Нейман.

Аркадий Яковлевич родился 13 августа 1945 года в Свердловске. В 1971 окончил химический факультет Уральского государственного университета. В 1975 году после окончания аспирантуры при кафедре физической химии защитил кандидатскую диссертацию, а в 1989 году - докторскую диссертацию на тему «Явления электро- и массопереноса и сопряженные процессы в сложных кислородных соединениях с амфотерным характером проводимости». В 1991 ему было присвоено ученое звание профессора. Работал в Уральском университете с 1972 года: младший научный сотрудник (1972–1974), старший научный сотрудник (1974–1978), ассистент (1978–1981), доцент кафедры неорганической химии (1981–1991), заведующий кафедрой (1995–2014). Благодаря его творческой активности и стремлению передать студентам самые современные знания и передовые научные взгляды, на кафедре уделялось много внимания модернизации лекционных курсов и привлечению к учебному процессу ведущих ученых Академии Наук. Аркадий Яковлевич лично впервые разработал лекционные курсы «Термодинамика и строение конденсированных сред», «Ионика расплавов и твердые тела», «Поверхностные и межфазные явления», «Высокотемпературная электрохимия». Многие поколения студентов запомнят А.Я. Неймана как блестящего лектора, его артистизм и умение донести сложное в доходчивой форме позволяли сделать слушателей своими единомышленниками и соучастниками творческого лекционного процесса. В 1998 году по инициативе А.Я. Неймана в рамках программы «Интеграция» в университете был создан научный центр «Неорганическая химия и новые материалы». При его консультировании и руководстве защищены 1 докторская и 7 кандидатских диссертаций.

Основные научные результаты А.Я. Неймана связаны с исследованием высокотемпературного переноса заряда и массы в оксидах и механизмов твердофазных реакций. Им обнаружены и исследованы неизвестные ранее явления: нефарадеевское поведение твердофазных реакций; явление индуцированного электрическим полем переноса заряда и массы через эвтектические интерфейсы; метакомпозиты – как новый класс электролитических композитных материалов; явление твердофазной электрокапиллярности; полианионный перенос заряда и массы в вольфраматах и молибдатах различной природы; спонтанное и индуцированное электрическим полем диспергирование оксидов, твердофазное растекание высокотемпературных оксидов; новый класс протонных проводников. Им были разработаны теоретическая модель современного кооперативного переноса кислорода и многовалентных металлов, электрохимический подход к твердофазным реакциям и межфазным транспортным процессам. А.Я. Нейман - создатель нового метода термохимической обработки оксидных монокристаллов для квантовой оптики и высокотемпературной электрохимии, метода диффузионной сварки для получения многочастотных лазерных элементов.

А.Я. Нейман стажировался в Университете Осло (Норвегия, 1997). Неоднократно работал в качестве приглашенного профессора и читал лекции в университетах Франции, Норвегии, Германии. Был членом Российского бюро Международного общества ионики твердого тела, Электрохимического общества, экспертного совета Российского фонда фундаментальных исследований; директором-координатором центра «Экологические технологии»; членом координационных советов программ «Университеты России – фундаментальные исследования», «Трансфертные технологии», «Поддержка наукоемкого бизнеса в высшей школе». Входил в диссертационный совет при Институте высокотемпературной электрохимии УрО РАН.

Награжден медалью «20 лет победы в Великой Отечественной войне» (1965) .

<http://aneiman.blogspot.com/>

https://biography.ideafix.co/indexa3f6.html?base=mag&id=a_0209

Список основных научных публикаций А.Я. Неймана:

1. KOTENEVA, EA; PESTEREVA, NN; ASTAPOVA, DV; NEIMAN, AY; ANIMITSA, IE.
TRANSPORT PROPERTIES OF SRMOO₄/MOO₃ COMPOSITES
RUSSIAN JOURNAL OF ELECTROCHEMISTRY 53(2), 187-195 (2017)
2. KHALIULLIN, SM; KHALIULLINA, AS; NEIMAN, AY.
HIGH-TEMPERATURE CONDUCTIVITY AND STRUCTURE OF Y-2(WO₄)₃ CERAMICS
RUSSIAN JOURNAL OF PHYSICAL CHEMISTRY B 10(1), 62-68 (2016)
3. PARTIN, GS; PESTEREVA, NN; KORONA, DV; NEIMAN, AY.
EFFECT OF COMPOSITION OF {(100%-X)CAWO₄-XV₂O₅} AND {(100%-X)LAVO₄-XV₂O₅} COMPOSITES ON THEIR CONDUCTIVITY
RUSSIAN JOURNAL OF ELECTROCHEMISTRY 51(10), 945-950 (2015)
4. KORONA, DV; PARTIN, GS; NEIMAN, AY.
CONDUCTIVITY OF FLUORITE-TYPE PR₆-X WO₁₂-1.5X TUNGSTATES (X=0.5; 0.75; 1; 1.25)
RUSSIAN JOURNAL OF ELECTROCHEMISTRY 51(10), 925-934 (2015)
5. PARTIN, GS; KORONA, DV; NEIMAN, AY; BELOVA, KG.
CONDUCTIVITY AND HYDRATION OF FLUORITE-TYPE LA₆-X WO₁₂-1.5X PHASES (X=0.4; 0.6; 0.8; 1)
RUSSIAN JOURNAL OF ELECTROCHEMISTRY 51(5), 381-390 (2015)

6. NEIMAN, AY; KARAPETYAN, AV; PESTEREVA, NN.
CONDUCTIVITY OF COMPOSITE MATERIALS BASED ON $\text{ME}_2(\text{WO}_4)_3$ AND WO_3 (ME = SC, IN)
RUSSIAN JOURNAL OF ELECTROCHEMISTRY 50(1), 58-69 (2014)
7. KORONA, DV; KUTIKOV, IM; NEIMAN, AY.
EFFECT OF HYDRATION ON CONDUCTIVITY OF $\text{Ba}_{4-4x}\text{La}_x\text{Ca}_{2-x}\text{Nb}_2\text{O}_{11+0.5x}$ (X=0.5, 1, 1.5, 2) PHASES
RUSSIAN JOURNAL OF ELECTROCHEMISTRY 49(12), 1171-1180 (2013)
8. NEIMAN, AY; PESTEREVA, NN; ZHOU, Y; NECHAEV, DO; KOTENEVA, EA; VANEC, K; HIGGINS, B; VOLKOVA, NA;
KORCHUGANOVA, IG.
THE NATURE AND THE MECHANISM OF ION TRANSFER IN TUNGSTATES $\text{ME}_2\{\text{WO}_4\}$ (CA, SR, BA) AND $\text{ME}_2(3+)\{\text{WO}_4\}_3$ (AL, SC, IN) ACCORDING TO THE DATA ACQUIRED BY THE TUBANDT METHOD
RUSSIAN JOURNAL OF ELECTROCHEMISTRY 49(9), 895-907 (2013)
9. PESTEREVA, NN; NEIMAN, AY.
REVERSIBILITY OF ELECTROSURFACE TRANSFER THROUGH EUTECTIC INTERFACES OF MEWO_4 VERTICAL BAR
 WO_3 (ME - CA, SR, BA)
RUSSIAN JOURNAL OF ELECTROCHEMISTRY 48(11), 1070-1078 (2012)
10. NEIMAN, AY; KARTSEVA, EV; PESTEREVA, NN; FEDOROVA, LM.
EFFECT OF OXYGEN ACTIVITY IN THE GASEOUS PHASE ON THE MECHANISM OF REACTIONS IN THE SOLID-
STATE SYNTHESIS OF $\text{IN}_2(\text{WO}_4)_3$ AND $\text{IN}_6\text{WO}_{12}$
RUSSIAN JOURNAL OF PHYSICAL CHEMISTRY A 85(11), 1885-1890 (2011)
11. NEIMAN, AY; TSIPIS, EV; KOLOSOV, VY; PESTEREVA, NN; ELIZAROVA, EA; CHAPON, P; NEKHIN, MY.
MUTUAL ELECTROSURFACE TRANSFER AND PHASE FORMATION AT THE $\text{MEWO}_4|\text{WO}_3$ (ME = CA, SR, BA)
INTERFACE: ELECTRON MICROSCOPY DATA
JOURNAL OF SURFACE INVESTIGATION 5(5), 979-985 (2011)
12. KORONA, DV; NEIMAN, AY.
CONDUCTIVITY AND HYDRATION OF LANTHANUM-SUBSTITUTED BARIUM CALCIUM NIOBATES $\text{Ba}_{4-x}\text{La}_x\text{Ca}_2\text{Nb}_2\text{O}_{11+0.5x}$ (X=0.5; 1; 1.5)
RUSSIAN JOURNAL OF ELECTROCHEMISTRY 47(6), 737-747 (2011)
13. ANIMITSA, I; DOGODAEVA, E; TARASOVA, N; KOSAREVA, O; NEIMAN, A.
OXYGEN-ION AND PROTON TRANSPORT IN $\text{Ba}_4\text{Na}_2\text{W}_2\text{O}_{11}$
SOLID STATE IONICS 185(1), 1-5 (2011)
14. ZHOU, Y; NEIMAN, A; ADAMS, S.
NOVEL POLYANION CONDUCTION IN $\text{SC}_2(\text{WO}_4)_3$ TYPE NEGATIVE THERMAL EXPANSION OXIDES
PHYSICA STATUS SOLIDI B-BASIC SOLID STATE PHYSICS 248(1), 130-135 (2011)
15. NEIMAN, A. YA.; TANSKAYA, A. V.; TSIPIS, E. V.; FYODOROVA, L. M.; ANTONOV, B. D..
EFFECT OF SIZE FACTOR ON MECHANISM OF INTERACTION BETWEEN Al_2O_3 AND Bi_2O_3 AND CONDUCTIVITY
OF COMPOSITE ON THEIR BASIS
NANOTECHNOLOGIES IN RUSSIA 6(3-4), 218 (2011)
16. ANIMITSA, IE; DOGODAEVA, EN; NOKHRIN, SS; KOSAREVA, OA; NEIMAN, AY.
SYNTHESIS, STRUCTURE, AND ELECTRIC PROPERTIES OF OXYGEN-DEFICIENT PEROVSKITES $\text{Ba}_3\text{In}_2\text{ZrO}_8$ AND
 $\text{Ba}_4\text{In}_2\text{Zr}_2\text{O}_{11}$
RUSSIAN JOURNAL OF ELECTROCHEMISTRY 46(7), 734-740 (2010)
17. PESTEREVA, NN; SAFONOVA, IG; NOKHRIN, SS; NEIMAN, AY.
EFFECT OF MWO_4 (M = CA, SR, BA) DISPERSION ON THE INTERFACIAL PROCESSES IN $(+/-)\text{WO}_3$ VERTICAL BAR
 MWO_4 VERTICAL BAR $\text{WO}_3(-/+)$ CELLS AND TRANSPORT PROPERTIES OF METACOMPOSITE PHASES
RUSSIAN JOURNAL OF INORGANIC CHEMISTRY 55(6), 876-882 (2010)
18. ANIMITSA, IE; KOCHETOVA, NA; NEIMAN, AY.
ELECTRIC PROPERTIES OF SOLID SOLUTIONS BASED ON STRONTIUM TANTALATE WITH PEROVSKITE-TYPE
STRUCTURE. OXYGEN-IONIC CONDUCTIVITY
RUSSIAN JOURNAL OF ELECTROCHEMISTRY 46(2), 161-167 (2010)

19. KOCHETOVA, NA; ANIMITSA, IE; NEIMAN, AY.
ELECTRIC PROPERTIES OF SOLID SOLUTIONS BASED ON STRONTIUM TANTALATE WITH PEROVSKITE-TYPE STRUCTURE. PROTONIC CONDUCTIVITY
RUSSIAN JOURNAL OF ELECTROCHEMISTRY 46(2), 168-174 (2010)
20. KORONA, DV; NEIMAN, AY; ANIMITSA, IE; SHARAFUTDINOV, AR.
EFFECT OF HUMIDITY ON CONDUCTIVITY OF BA₄CA₂NB₂O₁₁ PHASE AND SOLID SOLUTIONS BASED ON THIS PHASE
RUSSIAN JOURNAL OF ELECTROCHEMISTRY 45(5), 586-592 (2009)
21. KOCHETOVA, NA; ANIMITSA, IE; NEIMAN, AY.
THE SYNTHESIS AND PROPERTIES OF SOLID SOLUTIONS BASED ON BA₄CA₂NB₂O₁₁
RUSSIAN JOURNAL OF PHYSICAL CHEMISTRY A 83(2), 203-208 (2009)
22. ZHOU, YK; ADAMS, S; RAO, RP; EDWARDS, DD; NEIMAN, A; PESTEREVA, N.
CHARGE TRANSPORT BY POLYATOMIC ANION DIFFUSION IN SC₂(WO₄)₃
CHEMISTRY OF MATERIALS 20(20), 6335-6345 (2008)
23. KULIKOVA, T; NEIMAN, A; KARTAVTSEVA, A; EDWARDS, D; ADAMS, S.
CHARGE TRANSFER IN IN₂W₃O₁₂ AND IN₆WO₁₂ CERAMICS
SOLID STATE IONICS 178(33-34), 1714-1718 (2008)
24. PESTEREVA, NN; ZHUKOVA, AY; NEIMAN, AY.
TRANSPORT NUMBERS AND IONIC CONDUCTION OF EUTECTIC METHACOMPOSITES {(1-X)MEWO₄ CENTER DOT XWO₃} (ME = SR, BA; X=0-0.55)
RUSSIAN JOURNAL OF ELECTROCHEMISTRY 43(11), 1305-1313 (2007)
25. NEIMAN, AY; PESTEREVA, NN; TSIPIS, EV.
SURFACE DIFFUSION, MIGRATION, AND CONJUGATED PROCESSES AT HETEROPHASE INTERFACES BETWEEN WO₃ AND MEWO₄ (ME = CA, SR, BA)
RUSSIAN JOURNAL OF ELECTROCHEMISTRY 43(6), 672-681 (2007)
26. PESTEREVA, NN; POTASHNIKOVA, AV; SHUNYAEV, KY; NEIMAN, AY.
MUTUAL SPONTANEOUS AND ELECTROSURFACE PROCESSES AT HETEROPHASE INTERFACES WO₃ VERTICAL BAR ME-2(WO₄)₃ (ME = IN, EU, SC)
RUSSIAN JOURNAL OF ELECTROCHEMISTRY 43(6), 714-720 (2007)
27. NEIMAN, AY; KULIKOVA, TE.
ELECTROCHEMISTRY OF SOLID-PHASE REACTIONS: PHASE FORMATION IN THE IN₂O₃-WO₃ SYSTEM. PROCESSES AT THE WO₃ VERTICAL BAR IN₂O₃ AND WO₃ VERTICAL BAR IN₆WO₁₂ INTERFACES
RUSSIAN JOURNAL OF ELECTROCHEMISTRY 43(6), 682-693 (2007)
28. NEIMAN, A; YAKOVLEV, S.
SOLID-STATE SPREADING OF OXIDES: MORPHOLOGY AND CONDUCTIVITY OF IN₂O₃-BASED FILMS
SOLID STATE SCIENCES 9(2), 185-195 (2007)
29. NEIMAN, AY; UVAROV, NF; PESTEREVA, NN.
SOLID STATE SURFACE AND INTERFACE SPREADING: AN EXPERIMENTAL STUDY
SOLID STATE IONICS 177(39-40), 3361-3369 (2007)
30. ANIMITSA, I; NEIMAN, A; KOCHETOVA, N; KORONA, D; SHARAFUTDINOV, A.
CHEMICAL DIFFUSION OF WATER IN THE DOUBLE PEROVSKITES BA₄CA₂NB₂O₁₁ AND SR₆TA₂O₁₁
SOLID STATE IONICS 177(26-32), 2363-2368 (2006)
31. ANIMITSA, IE; NEIMAN, AY; KOCHETOVA, NA; KORONA, DV.
INTRAPHASE CHEMICAL DIFFUSION OF WATER IN BA₄CA₂NB₂O₁₁
RUSSIAN JOURNAL OF ELECTROCHEMISTRY 42(4), 311-319 (2006)
32. NEIMAN, A; TSIPIS, E; BEKETOV, I; KOTOV, Y; MURZAKAIEV, A; SAMATOV, O.
SOLID STATE INTERACTIONS IN NANO-SIZED OXIDES
SOLID STATE IONICS 177(3-4), 403-410 (2006)

33. NEIMAN, AY; TRAFIEVA, MF; KOSTIKOV, YP.
CHEMISM AND MASS-TRANSFER ROUTES DURING PHASE FORMATION IN THE V₂O₅ VERTICAL BAR MOO₃(3) SYSTEM
RUSSIAN JOURNAL OF INORGANIC CHEMISTRY 50(10), 1472-1484 (2005)
34. NEIMAN, AY; PESTEREVA, NN; SHARAFUTDINOV, AR; KOSTIKOV, YP.
CONDUCTION AND TRANSPORT NUMBERS IN METACOMPOSITES MEWO₄ CENTER DOT WO₃ (ME = CA, SR, BA)
RUSSIAN JOURNAL OF ELECTROCHEMISTRY 41(6), 598-611 (2005)
35. NEIMAN, AY; GUSEVA, AF; TRIFONOVA, MV; SUKHANKINA, IV.
REACTIVE SURFACE DIFFUSION DURING SYNTHESIS OF MOLYBDATES AND TUNGSTATES: THE ROLE OF THE PHASE CONSTITUTION OF PRODUCTS
RUSSIAN JOURNAL OF INORGANIC CHEMISTRY 50(3), 319-324 (2005)
36. KONISHEVA, E; NEIMAN, A; GORBUNOVA, E.
TRANSPORT PROCESSES AND SURFACE TRANSFORMATION AT THE CAWO₄ VERTICAL BAR WO₃ INTERFACE
SOLID STATE IONICS 157(1-4), 45-49 (2003)
37. ANIMITSA, I; NEIMAN, A; KOCHETOVA, N; MELEKH, B; SHARAFUTDINOV, A.
PROTON AND OXYGEN-ION CONDUCTIVITY OF BA(4)CA(2)NB(2)O(11)
SOLID STATE IONICS 162, 63-71 (2003)
38. ANIMITSA, I; DENISOVA, T; NEIMAN, A; NEPRYAHIN, A; KOCHETOVA, N; ZHURAVLEV, N; COLOMBAN, P.
STATES OF H⁺-CONTAINING SPECIES AND PROTON MIGRATION FORMS IN HYDRATED NIOBATES AND TANTALATES OF ALKALINE-EARTH METALS WITH A PEROVSKITE-RELATED STRUCTURE
SOLID STATE IONICS 162, 73-81 (2003)
39. ANIMITSA, IE; TITOVA, SG; NEIMAN, AY; KOCHETOVA, NA; BRONIN, DI; ISAEVA, EV.
PHASE TRANSITIONS IN NONSTOICHIOMETRIC STRONTIUM TANTALATES WITH THE CRYOLITE STRUCTURE
CRYSTALLOGRAPHY REPORTS 47(6), 991-995 (2002)
40. KONY SHEVA, EY; NEIMAN, AY; GORBUNOVA, EM.
HIGH-TEMPERATURE SURFACE PHASE AT INTERPHASE BOUNDARY CAWO₄ VERTICAL BAR WO₃:
COMPOSITION AND PROPERTIES
IZVESTIYA AKADEMII NAUK SERIYA FIZICHESKAYA 66(6), 830-833 (2002)
41. KONY SHEVA, EY; NEIMAN, AY.
SURFACE PHASE IN THE CAWO₄-WO₃ SYSTEM: A MODEL FOR THE TOPOLOGICAL STRUCTURE OF COMPOSITES
RUSSIAN JOURNAL OF ELECTROCHEMISTRY 38(4), 369-377 (2002)
42. COLOMBAN, P; ROMAIN, F; NEIMAN, A; ANIMITSA, I.
DOUBLE PEROVSKITES WITH OXYGEN STRUCTURAL VACANCIES: RAMAN SPECTRA, CONDUCTIVITY AND WATER UPTAKE
SOLID STATE IONICS 145(1-4), 339-347 (2001)
43. ANIMITSA, I; NORBY, T; MARION, S; GLOCKNER, R; NEIMAN, A.
INCORPORATION OF WATER IN STRONTIUM TANTALATES WITH PEROVSKITE-RELATED STRUCTURE
SOLID STATE IONICS 145(1-4), 357-364 (2001)
44. NEIMAN, AY.
ELECTRIC SURFACE PHENOMENA INS SOLID-STATE SYSTEMS
RUSSIAN JOURNAL OF PHYSICAL CHEMISTRY 75(12), 1945-1958 (2001)
45. NEIMAN, A; BARSANOV, S.
SOLID STATE INTERACTION BETWEEN V₂O₅ AND MOO₃: SPECIFIC FEATURES RELATED TO MINOR VANADIA TRANSFER
JOURNAL OF SOLID STATE ELECTROCHEMISTRY 5(6), 382-392 (2001)
46. KONISHEVA, E; GORBUNOVA, E; NEIMAN, A.
SPONTANEOUS AND ELECTRICAL FIELD-STIMULATED PROCESSES AT THE CAWO₄ VERTICAL BAR WO₃

INTERFACE

SOLID STATE IONICS 141, 141-145 (2001)

47. NEIMAN, A; GUSEVA, A; TRIFONOVA, M.
SURFACE REACTION DIFFUSION DURING FORMATION OF MOLYBDATES AND TUNGSTATES
SOLID STATE IONICS 141, 321-329 (2001)
48. NEIMAN, AY; TSIPI, E; BELKOVA, T; SHARAFUTDINOV, A.
SPECIFIC FEATURES OF BISMUTH OXIDE REACTIVITY IN SPONTANEOUS AND ELECTRICAL FIELD-STIMULATED INTERACTIONS
SOLID STATE IONICS 141, 335-341 (2001)
49. ANIMITSA, IE; NEIMAN, AY; SHARAFUTDINOV, AR; KAZAKOVA, MG.
STRONTIUM TANTALATES WITH A PEROVSKITE STRUCTURE: THEIR CONDUCTIVITY AND HIGH-TEMPERATURE INTERACTION WITH WATER
RUSSIAN JOURNAL OF ELECTROCHEMISTRY 37(3), 266-272 (2001)
50. ANIMITSA, I; NEIMAN, A; SHARAFUTDINOV, A; NOCHRIN, S.
STRONTIUM TANTALATES WITH PEROVSKITE-RELATED STRUCTURE
SOLID STATE IONICS 136, 265-271 (2000)
51. KIRPICHCHIKOVA, T; DOUMERC, JP; NEIMAN, A.
A NEW THALLIUM-STRONTIUM-LANTHANUM COBALTITE
MATERIALS RESEARCH BULLETIN 35(9), 1411-1418 (2000)
52. KIRPISHCHIKOVA, TA; DOUMERC, JP; NEIMAN, AY.
SYNTHESIS OF THE $Tl_0.64Sr_{1.5}La_{0.5}Co_{0.5}O_{5-\epsilon}$ PHASE WITH A 1201 STRUCTURE
RUSSIAN JOURNAL OF INORGANIC CHEMISTRY 45(5), 678-684 (2000)
53. NEIMAN, AY; DIRILE, O; UTIUMOV, VY.
SOLID-STATE SPREADING AND CRYSTALLIZATION OF In_2O_3 : STRUCTURE AND MORPHOLOGY OF FILMS ON SINGLE-CRYSTAL Al_2O_3 AND YTTRIA-STABILIZED ZIRCONIA SUBSTRATES
INORGANIC MATERIALS 36(1), 32-37 (2000)
54. GLOCKNER, R; NEIMAN, A; LARRING, Y; NORBY, T.
PROTONS IN $Sr_{-3}(Sr_{1+x}Nb_{2-x})O_{9-3x/2}$ PEROVSKITE
SOLID STATE IONICS 125(1-4), 369-376 (1999)
55. NEIMAN, A; UTIUMOV, V.
SOLID STATE SPREADING AND CRYSTALLISATION OF REFRACTORY OXIDES
SOLID STATE IONICS 119(1-4), 49-53 (1999)
56. NEIMAN, A; KONISHEVA, E.
ELECTROSURFACE TRANSFER IN THE $CaWO_4-WO_3$ SYSTEM
SOLID STATE IONICS 119(1-4), 75-78 (1999)
57. NEIMAN, AY.
DEPENDENCE OF THE MOBILITY OF CHARGE AND MASS CARRIERS IN OXIDES ON THE DEGREE OF THEIR IONIZATION
ZHURNAL FIZICHESKOI KHIMII 73(3), 391-400 (1999)
58. BELKOVA, TB; KOSTIKOV, YP; NEIMAN, AY.
SOLID-STATE REACTIONS OF BISMUTH OXIDE WITH TRANSITION-METAL OXIDES (Cr_2O_3), Mn_2O_3), Co_3O_4)
RUSSIAN JOURNAL OF INORGANIC CHEMISTRY 44(2), 161-166 (1999)
59. NEIMAN, AY; GUSEVA, AF.
NEW DATA ON THE MECHANISM OF MASS TRANSFER IN SOLID-PHASE REACTIONS: II. CHEMICAL AND ELECTROCHEMICAL SURFACE PHENOMENA
KINETICS AND CATALYSIS 40(1), 33-43 (1999)
60. NEIMAN, AY; BARSANOV, SY.
NEW DATA ON THE MECHANISM OF MASS TRANSFER IN SOLID-PHASE REACTIONS: III. INTERACTION

BETWEEN OXIDES WITH LOW SURFACE ENERGIES (REACTION BETWEEN V₂O₅ AND MOO₃)
KINETICS AND CATALYSIS 40(1), 44-50 (1999)

61. NEIMAN, A; KONISHEVA, E.
ELECTROSURFACE TRANSFER OF WO₃ INTO CAWO₄ CERAMICS
SOLID STATE IONICS 110(1-2), 121-129 (1998)
62. NEIMAN, AY; KONYSHEVA, EY.
ELECTROSURFACE TRANSFER IN THE CAWO₄-WO₃ SYSTEM
RUSSIAN JOURNAL OF ELECTROCHEMISTRY 34(3), 248-255 (1998)
63. NEIMAN, A; GORODETSKAYA, I.
SOLID PHASE GROWTH AND CHARACTERIZATION OF BETA-ALUMINATES FILMS ON ALPHA-AL₂O₃ AND
RELATIVE SUPPORTS
SOLID STATE IONICS 106(3-4), 309-313 (1998)
64. NEIMAN, AY; GUSEVA, AF; SHARAFUTDINOV, AR.
ORIGIN OF POTENTIAL DIFFERENCE SELFGENERATED BY REACTION AND TRANSPORT PROCESSES
SOLID STATE IONICS 101, 367-372 (1997)
65. NEIMAN, AY; BELKOVA, TB.
ELECTROCHEMISTRY OF SOLID-PHASE REACTIONS: FORMATION OF OXYGEN-CONDUCTING ELECTROLYTIC
PHASES IN THE Y₂O₃-BI₂O₃ SYSTEM
RUSSIAN JOURNAL OF ELECTROCHEMISTRY 33(9), 1003-1008 (1997)
66. BELKOVA, TB; NEIMAN, AY; KONYSHEVA, EY.
MASS TRANSPORT DURING PHASE FORMATION IN THE Y₂O₃-BI₂O₃ SYSTEM
INORGANIC MATERIALS 33(8), 835-838 (1997)
67. KUZIN, BL; BRONIN, DI; NEIMAN, AY; KOZENTSEVA, AG; VDOVIN, GK; VAKARIN, SV; ZYRYANOV, VG.
THE ELECTROCHEMICAL BEHAVIOR OF COMPACT INDIUM OXIDE ELECTRODES APPLIED ON SOLID OXIDE
ELECTROLYTES
RUSSIAN JOURNAL OF ELECTROCHEMISTRY 33(5), 519-526 (1997)
68. BELKOVA, TB; NEIMAN, AY; KOSTIKOV, YP.
REACTIONS OF BISMUTH OXIDE WITH ALKALINE-EARTH OXIDES AND CARBONATES
ZHURNAL NEORGANICHESKOI KHIMII 41(11), 1822-1829 (1996)
69. NEIMAN, AY; KIRPISHCHIKOVA, TA.
FORMATION OF THE O-2-SOLID ELECTROLYTE DURING THE INTERACTION OF BI₂O₃ WITH WO₃
RUSSIAN JOURNAL OF ELECTROCHEMISTRY 32(4), 471-477 (1996)
70. NEIMAN, AY.
COOPERATIVE TRANSPORT IN OXIDES: DIFFUSION AND MIGRATION PROCESSES INVOLVING MO(VI), W(VI),
V(V) AND NB(V)
SOLID STATE IONICS 83(3-4), 263-273 (1996)
71. NEIMAN, AY; ANIMITSA, IE; GORODETSKAYA, IE.
TRANSPORT OF MULTIVALENT METALS IN REACTIONS OF V₂O₅ AND NB₂O₅ WITH RARE-EARTH METAL
OXIDES
ZHURNAL FIZICHESKOI KHIMII 70(2), 242-246 (1996)
72. NEIMAN, AY; GUSEVA, AF.
NEW DATA ON THE MECHANISM OF MASS-TRANSFER IN SOLID-STATE REACTIONS .1. REACTIONS IN AN
ELECTRIC-FIELD
KINETICS AND CATALYSIS 35(2), 188-194 (1994)
73. BELKOVA, TB; VOVKOTRUB, EG; NEIMAN, AY.
MACROMECHANISM OF SOLID-PHASE REACTIONS OF BI₂O₃ WITH ALUMINUM AND RARE-EARTH-METALS
OXIDES
ZHURNAL NEORGANICHESKOI KHIMII 39(2), 219-222 (1994)

74. NEIMAN, AY; GUSEVA, AF.
ELECTROCHEMICAL APPROACH TO SOLID-PHASE REACTIONS AND INTERFACIAL TRANSPORT PROCESSES
RUSSIAN JOURNAL OF ELECTROCHEMISTRY 29(11), 1215-1221 (1993)
75. NEIMAN, AY; KALYAKIN, AS; GUSEVA, AF.
MECHANISM OF ELECTRON AND MASS-TRANSPORT IN MOLYBDATES AND TUNGSTATES WITH A SCHEELITE
STRUCTURE
INORGANIC MATERIALS 26(8), 1474-1479 (1990)
76. ZAPASSKAYA, IP; NEIMAN, AY; SHARAFUTDINOV, AR.
MECHANISM OF LiNbO_3 SYNTHESIS
ZHURNAL FIZICHESKOI KHIMII 64(7), 1943-1946 (1990)
77. ANIMITSA, IE; AVERKOVA, OE; NEIMAN, AY; SIROTINKIN, VP.
ELECTRICAL-CONDUCTIVITY OF PEROVSKITE-LIKE PHASES OF $\text{Sr}_6\text{-xRe}_x\text{Nb}_2\text{O}_{11+0.5x}$
INORGANIC MATERIALS 24(5), 701-704 (1988)
78. NEIMAN, AY; PODKORYTOV, AL; ZHUKOVSKII, VM.
DEFECT STRUCTURE AND TRANSPORT-PROPERTIES OF $\text{Me}_6\text{M}_2\text{O}_{11}(\text{Me}=\text{Sr}, \text{Ba}, \text{M}=\text{Nb}, \text{Ta})$ -TYPE PHASES
PHYSICA STATUS SOLIDI A-APPLIED RESEARCH 101(2), 371-380 (1987)
79. SHINDELMAN, NK; PODKORYTOV, AL; PERELYAEVA, LA; NEIMAN, AY; TSVETKOVA, MP.
VIBRATIONAL-SPECTRA AND DISTINCTIVE FEATURES OF THE STRUCTURE AND ION MIGRATION IN $\text{Sr}_6\text{Ta}_2\text{O}_{11}$
AND ITS SOLID-SOLUTIONS
INORGANIC MATERIALS 23(3), 426-429 (1987)
80. NEIMAN, AY; PODKORYTOV, AL; ANIMITSA, IE; ZHUKOVSKAYA, AS; ZHUKOVSKII, VM.
CATION SELFDIFFUSION AND MECHANISM OF THE SYNTHESIS OF STRONTIUM AND BARIUM NIOBATES
ZHURNAL NEORGANICHESKOI KHIMII 32(2), 359-365 (1987)
81. NEIMAN, AY; GUSEVA, AF.
CHARACTERISTICS OF THE SOLID-PHASE MOLYBDATE SYNTHESIS IN THE ELECTRIC-FIELD
ZHURNAL FIZICHESKOI KHIMII 60(11), 2873-2875 (1986)
82. KRYLOV, AO; NEIMAN, AY; KONOPLEVA, OV.
HIGH-TEMPERATURE ELECTROTRANSPORT IN CdWO_4
INORGANIC MATERIALS 22(7), 1043-1046 (1986)
83. NEIMAN, AY; PODKORYTOV, AL; YURKOVSKAYA, NY; ZHUKOVSKII, VM.
SOLID ELECTROLYTES $\text{Sr}(\text{Ba})_6\text{Nb}(\text{Ta})_2\text{O}_{11}$ WITH DISORDER STRUCTURE OF OXYGEN SUBLATTICE
INORGANIC MATERIALS 22(7), 1031-1034 (1986)
84. NEIMAN, AY; PODKORYTOV, AL; LESHCHENKO, PP; LYKOVA, LN.
DEFECT STRUCTURE AND MECHANISM OF CONDUCTIVITY OF SOLID ELECTROLYTES BASED ON $\text{M}_6\text{IIIM}_2\text{VO}_{11}$
(MII = Sr, Ba, MV = Nb, Ta)
INORGANIC MATERIALS 22(7), 1035-1038 (1986)
85. NEIMAN, AY; FEDOROVA, LM; AFANASEV, AA.
INTERACTION OF POINT-DEFECTS IN PbMOO_4
INORGANIC MATERIALS 22(5), 713-717 (1986)
86. NEIMAN, AY; TIGIEVA, IE; LITVINOV, LA; PISHCHIK, VV.
MECHANISM OF THE SODIUM BETA-ALUMINATE SYNTHESIS
ZHURNAL NEORGANICHESKOI KHIMII 31(4), 863-868 (1986)
87. NEIMAN, AY; SHAPOVALOV, AG; ZAPASSKAYA, IP.
PRESENTATION OF KINETIC DATA OF MODELING OF SOLID-PHASE REACTIONS IN REDUCED THICKNESS-
REDUCED TIME COORDINATES
ZHURNAL FIZICHESKOI KHIMII 60(2), 314-317 (1986)
88. GABRIELIAN, VT; FEDOROVA, LM; TKACHIENKO, EB; NEIMAN, AY; NIKOGOSIAN, NS.
CRYSTAL-GROWTH AND PHYSICO-CHEMICAL PROPERTIES OF LEAD MOLYBDATE IN THE HOMOGENEITY

REGION

CRYSTAL RESEARCH AND TECHNOLOGY 21(4), 439 (1986)

89. KALYAKIN, AS; KRYLOV, AO; NEIMAN, AY; EVDOKIMOV, AA; ELISEEV, AA.
DISORDERING AND ELECTROTRANSPORT IN $\text{NaLa}(\text{MOO}_4)_2$ SINGLE-CRYSTALS AND CERAMIC
INORGANIC MATERIALS 21(8), 1229-1232 (1985)
90. NEIMAN, AY; KRYLO, AO; KUZNETSOV, VA.
EFFECT OF THE ELECTRICAL-FIELD ON SOLID-PHASE REACTIONS BETWEEN OXIDES
ZHURNAL FIZICHESKOI KHIMII 59(9), 2360-2361 (1985)
91. NEIMAN, AY; AFANASIEV, AA; FEODOROVA, LM; GABRIELIAN, VT; KARAGEZIAN, SM.
DEVIATION FROM STOICHIOMETRY AND ELECTRON-TRANSFER IN PbMOO_4
PHYSICA STATUS SOLIDI A-APPLIED RESEARCH 83(1), 153-158 (1984)
92. NEIMAN, AY; ZAPASSKAYA, IP; POLYANSKAYA, OA; RUSYAN, PR; GABRIELIAN, VT.
A PHASE WITH THE STRUCTURE OF TETRAGONAL TUNGSTEN BRONZE IN THE $\text{BaO-Li}_2\text{O-Nb}_2\text{O}_5$ SYSTEM
INORGANIC MATERIALS 19(8), 1226-1230 (1983)
93. NEIMAN, AY; ZAPASSKAYA, IP; PODKORYTOV, AL; ZHUKOVSKII, VM.
MACROMECHANISMS OF SOLID-PHASE REACTIONS OF CARBONATES AND OXIDES OF ALKALI-EARTH METALS
WITH Nb(V) AND Mo(VI) OXIDES
ZHURNAL NEORGANICHESKOI KHIMII 28(9), 2220-2227 (1983)
94. NEIMAN, AY; PODKORYTOV, AL; OSTROUSHKO, AA; KOTOK, LA; SALIICHUK, EK.
SOLID-PHASE SYNTHESIS AND PROPERTIES OF THE NIOBATE $\text{Sr}_2\text{Nb}_2\text{O}_7$
INORGANIC MATERIALS 19(4), 585-589 (1983)
95. NEIMAN, AY; KALYAKIN, AS; ZHUKOVSKII, VM.
IONIC-CONDUCTIVITY OF $\text{MgLa}(\text{WO}_4)_2$ (Mg-Li, Na, K) TUNGSTATES
ZHURNAL FIZICHESKOI KHIMII 56(1), 200-201 (1982)
96. ZHUKOVSKII, VM; VESELOVSKAYA, TG; ZHUKOVSKAYA, AS; NEIMAN, AY.
IRON MOBILITY ALONG THE TETRAPOSITION AND OCTAPOSITION OF THE GARNET STRUCTURE
ZHURNAL FIZICHESKOI KHIMII 55(1), 259-260 (1981)
97. NEIMAN, AY; ZAPASSKAYA, IP; PODKORYTOV, AL; ZHUKOVSKII, VM.
ELECTRIC TRANSFER AND POINT-DEFECTS IN BARIUM NIOBATES
ZHURNAL FIZICHESKOI KHIMII 54(11), 2971-2973 (1980)
98. NEIMAN, AY; TKACHENKO, EV; KVICHKO, LA; KOTOK, LA.
CONDITIONS AND MACROMECHANISM OF SOLID-PHASE SYNTHESIS OF YTTRIUM ALUMINATES
ZHURNAL NEORGANICHESKOI KHIMII 25(9), 2340-2345 (1980)
99. NEIMAN, AY; TKACHENKO, EV; FEDOROVA, LM; PETROV, AN; GABRIELIAN, VT; KARAGEZIAN, SM.
STRUCTURAL IMPERFECTION AND TRANSFER MECHANISM IN PbMOO_4
INORGANIC MATERIALS 16(11), 1398-1401 (1980)
100. TKACHENKO, EV; PAZDNIKOV, PP; ZHUKOVSKII, VM; NEIMAN, AY; SHAPOVALOV, AG; RIVKIN, MN;
VESELOVSKAYA, TG.
PREPARATION OF YTTRIUM FERRITE WITH THE GARNET STRUCTURE IN SOLID-PHASE REACTIONS
INORGANIC MATERIALS 16(11), 1405-1409 (1980)
101. NEIMAN, AY; ZAPASSKAYA, IP; ZHUKOVSKII, VM; CHEREPANOV, VA.
HIGH-TEMPERATURE ELECTRIC-CONDUCTIVITY OF STRONTIUM NIOBATES
ZHURNAL FIZICHESKOI KHIMII 53(5), 1297 (1979)
102. TKACHENKO, EV; KRUGLYASHOV, AL; NEIMAN, AY.
NATURE OF DISORDERING AND CONDUCTIVITY OF ALKALI EARTH METAL TUNGSTATES
ZHURNAL FIZICHESKOI KHIMII 53(9), 2385 (1979)
103. TKACHENKO, EV; NEIMAN, AY; ZAPASSKAYA, IP; KRUGLYASHOV, AL.
EFFECT OF THERMODYNAMIC PARAMETERS OF A MEDIUM ON NATURE OF DEFECT-FORMATION IN

STRONTIUM AND BARIUM ORTHO TUNGSTATES

ZHURNAL FIZICHESKOI KHIMII 51(5), 1255 (1977)

104. TKACHENKO, EV; KRUGLYASHOV, AL; NEIMAN, AY; KALYAKIN, AS.

NATURE OF CONDUCTIVITY OF STRONTIUM ORTHOMOLYBDATES IN RELATION TO COMPOSITION OF COMPOUNDS AND THERMODYNAMIC PARAMETERS OF A MEDIUM

ZHURNAL FIZICHESKOI KHIMII 51(7), 1832 (1977)

105. TKACHENKO, EV; PAZDNIKOV, IP; NEIMAN, AY; RIVKIN, MN; KROPANEV, AY; SHAPOVALOV, AG.

CONDITIONS AND MECHANISM OF SOLID-PHASE SYNTHESIS OF GADOLINIUM FERRITES

ZHURNAL NEORGANICHESKOI KHIMII 22(12), 3220 (1977)

106. TKACHENKO, EV; ZHUKOVSKII, VM; MARKOV, MS; VESELOVA, NA; NEIMAN, AY.

POSSIBLE ROLE OF SOLID-PHASE INTERACTIONS IN GEOLOGICAL PROCESSES

DOKLADY AKADEMII NAUK SSSR 224(6), 1414 (1975)

107. ZHUKOVSKII, VM; TKACHENKO, EV; NEIMAN, AY; PETROV, AN.

INTERRELATION BETWEEN NATURE OF DEFECT FORMATION AND MECHANISMS OF REACTION DIFFUSION IN SOLID-PHASE SYNTHESIS OF COMPLEX OXIDES

DOKLADY AKADEMII NAUK SSSR 225(4), 850 (1975)