

Krassimir N. Bozhilov  
August, 2021

Refereed Publications

1. Bozhilov, K. N., Le, T. T., Qin, Z. X., Terlier, T., Palcic, A., Rimer, J. D., & Valtchev, V. (2021). Time-resolved dissolution elucidates the mechanism of zeolite MFI crystallization. *Science Advances*, 7(25).
2. Peterson, R. C., Graham, R. C., Ervin, J. O., Kozin, I. S., Sickman, J. O., Bozhilov, K. N., & Reid, J. W. (2021). Sveite from the northeastern San Joaquin Valley, California. *Canadian Mineralogist*, 59(2), 409-421.
3. Omaiye, E. E., M. Williams, K. N. Bozhilov, & P. Talbot (2021), Design features and elemental/metal analysis of the atomizers in pod-style electronic cigarettes, *Plos One*, 16(3).
4. Huang, W., M. Shishehbor, N. Guarin-Zapata, N. D. Kirchhofer, J. Li, L. Cruz, T. F. Wang, S. Bhowmick, D. Stauffer, P. Manimunda, K. N. Bozhilov, R. Caldwell, P. Zavattieri, & D. Kisailus (2020), A natural impact-resistant bicontinuous composite nanoparticle coating, *Nature Materials*, 19(11), 1236-1243.
5. Williams, M., K. Bozhilov, J. Li, A. Villarreal, S. Sakamaki-Ching, M. Hua, S. Lin, S. Bates, A. Robinson, M. Goniewicz, T. Lyons, & P. Talbot (2020), Chemical elements and metals in aerosols from three generations of electronic cigarettes, *Environmental and Molecular Mutagenesis*, 61, 31-31.
6. Yang, Y., B. A. Song, X. Ke, F. Y. Xu, K. N. Bozhilov, L. B. Hu, R. Shahbazian-Yassar, & M. R. Zachariah (2020), Aerosol synthesis of high entropy alloy nanoparticles, *Langmuir*, 36(8), 1985-1992.
7. Barragan, A. A., S. Hanukovich, K. Bozhilov, S. Yamijala, B. M. Wong, P. Christopher, & L. Mangolini (2019), Photochemistry of plasmonic titanium nitride nanocrystals, *Journal of Physical Chemistry C*, 123(35), 21796-21804.
8. Williams, M., K. N. Bozhilov, & P. Talbot (2019), Analysis of the elements and metals in multiple generations of electronic cigarette atomizers, *Environmental Research*, 175, 156-166.
9. Prech, J., K. N. Bozhilov, J. El Fallah, N. Barrier, & V. Valtchev (2019), Fluoride etching opens the structure and strengthens the active sites of the layered zsm-5 zeolite, *Microporous and Mesoporous Materials*, 280, 297-305.
10. Geng, L. X., J. P. Scheifers, J. Zhang, K. N. Bozhilov, B. P. T. Fokwa, & J. C. Guo (2018), Crystal structure transformation in chevrel phase mo6s8 induced by aluminum intercalation, *Chemistry of Materials*, 30(23), 8420-8425.

11. Bloodgood, M. A., P. R. Wei, E. Aytan, K. N. Bozhilov, A. A. Balandin, & T. T. Salguero (2018), Monoclinic structures of niobium trisulfide, *APL Materials*, 6(2).
12. Geremew, A., M. A. Bloodgood, E. Aytan, B. W. K. Woo, S. R. Corber, G. Liu, K. Bozhilov, T. T. Salguero, S. Romyantsev, M. P. Rao, & A. A. Balandin (2018), Current carrying capacity of quasi-1d zrte<sub>3</sub> van der waals nanoribbons, *IEEE Electron Device Letters*, 39(5), 735-738.
13. Lim, T., G. Ico, K. Jung, K. N. Bozhilov, J. Nam, & A. A. Martinez-Morales (2018), Crystal growth and piezoelectric characterization of mechanically stable zno nanostructure arrays, *Crystengcomm*, 20(38).
14. Mutlu, Z., B. Debnath, S. Su, C. Li, M. Ozkan, K. N. Bozhilov, R. K. Lake, & C. S. Ozkan (2018), Chemical vapor deposition and phase stability of pyrite on sio<sub>2</sub>, *Journal of Materials Chemistry C*, 6(17), 4753-4759.
15. Machev, P., E. F. O'Bannon, K. N. Bozhilov, Q. Wang, & L. Dobrzhinetskaya (2018), Not all moissanites are created equal: New constraints on moissanite from metamorphic rocks of bulgaria, *Earth and Planetary Science Letters*, 498, 387-396.
16. Hou, W. T., P. Cortez, R. Wuhrer, S. Macartney, K. N. Bozhilov, R. Liu, L. R. Sheppard, & D. Kisailus (2017), Oriented epitaxial tio<sub>2</sub> nanowires for water splitting, *Nanotechnology*, 28(26).
17. Su, H. P., A. A. Barragan, L. X. Geng, D. H. Long, L. C. Ling, K. N. Bozhilov, L. Mangolini, & J. C. Guo (2017), Colloidal synthesis of silicon-carbon composite material for lithium-ion batteries, *Angewandte Chemie-International Edition*, 56(36), 10780-10785.
18. Wang, W., Z. Favors, C. Li, C. Liu, R. Ye, C. Fu, K. Bozhilov, J. Guo, M. Ozkan, & C. S. Ozkan (2017), Silicon and carbon nanocomposite spheres with enhanced electrochemical performance for full cell lithium ion batteries, *Scientific Reports*, 7.
19. Williams, M., K. Bozhilov, S. Ghai, & P. Talbot (2017), Elements including metals in the atomizer and aerosol of disposable electronic cigarettes and electronic hookahs, *Plos One*, 12(4).
20. Qin, Z., G. Melinte, J.-P. Gilson, M. Jaber, K. Bozhilov, P. Boullay, S. Mintova, O. Ersen, & V. Valtchev (2016), The mosaic structure of zeolite crystals, *Angewandte Chemie International Edition*, 55(48), 15049-15052.
21. Campbell, B., R. Ionescu, M. Tolchin, K. Ahmed, Z. Favors, K. N. Bozhilov, C. S. Ozkan, & M. Ozkan (2016), Carbon-coated, diatomite-derived nanosilicon as a high rate capable li-ion battery anode, *Scientific Reports*, 6, 33050.

22. Zhong, L., C. Beaudette, J. Guo, K. Bozhilov, & L. Mangolini (2016), Tin nanoparticles as an effective conductive additive in silicon anodes, *Scientific Reports*, 6, 30952.
23. Aldosary, M., J. Li, C. Tang, Y. Xu, J.-G. Zheng, K. N. Bozhilov, & J. Shi (2016), Platinum/yttrium iron garnet inverted structures for spin current transport, *Applied Physics Letters*, 108(24), 242401.
24. Fu, C. Y., G. H. Li, J. Zhang, B. Cornejo, S. S. Piao, K. N. Bozhilov, R. C. Haddon, & J. C. Guo (2016), Electrochemical lithiation of covalently bonded sulfur in vulcanized polyisoprene, *Acs Energy Letters*, 1(1), 115-120.
25. Matsubu, J. C., E. T. Lin, K. L. Gunther, K. N. Bozhilov, Y. B. Jiang, & P. Christopher (2016), Critical role of interfacial effects on the reactivity of semiconductor-cocatalyst junctions for photocatalytic oxygen evolution from water, *Catalysis Science & Technology*, 6(18), 6836-6844.
26. Stolyarov, M. A., G. X. Liu, M. A. Bloodgood, E. Aytan, C. L. Jiang, R. Samnakay, T. T. Salguero, D. L. Nika, S. L. Romyantsev, M. S. Shur, K. N. Bozhilov, & A. A. Balandin (2016), Breakdown current density in h-bn-capped quasi-1d tase3 metallic nanowires: Prospects of interconnect applications, *Nanoscale*, 8(34), 15774-15782.
27. Fu, C., B. M. Wong, K. N. Bozhilov, & J. Guo (2016), Solid state lithiation-delithiation of sulphur in sub-nano confinement: A new concept for designing lithium-sulphur batteries, *Chemical Science*, 7(2), 1224-1232.
28. Williams, M., A. To, K. Bozhilov, & P. Talbot (2015), Strategies to reduce tin and other metals in electronic cigarette aerosol, *Plos One*, 10(9).
29. Green, H. W., F. Shi, K. Bozhilov, G. Xia, & Z. Reches (2015), Phase transformation and nanometric flow cause extreme weakening during fault slip, *Nature Geoscience*, 8(6), 484-U491.
30. Melinte, G., V. Georgieva, M. A. Springuel-Huet, A. Nossov, O. Ersen, F. Guenneau, A. Gedeon, A. Palcic, K. N. Bozhilov, C. Pham-Huu, S. L. Qiu, S. Mintova, & V. Valtchev (2015), 3D study of the morphology and dynamics of zeolite nucleation, *Chemistry-A European Journal*, 21(50), 18316-18327.
31. Hou, W., L. Lancaster, D. Li, A. Bowlus, K. Bozhilov, & D. Kisailus (2014), Biologically inspired synthesis of highly branched zinc oxide nanowires, *Bioinspired Biomimetic and Nanobiomaterials*, 3(1), 10-18.
32. Exarhos, S., K. N. Bozhilov, & L. Mangolini (2014), Spray pyrolysis of czts nanoplatelets, *Chemical Communications*, 50(77), 11366-11369.
33. El-Roz, M., L. Lakiss, A. Vicente, K. N. Bozhilov, F. Thibault-Starzyk, & V. Valtchev (2014), Ultra-fast framework stabilization of ge-rich zeolites by low-temperature plasma treatment, *Chemical Science*, 5(1), 68-80
34. Williams, M., A. Villarreal, K. Bozhilov, S. Lin, & P. Talbot (2013), Metal and

silicate particles including nanoparticles are present in electronic cigarette cartomizer fluid and aerosol, *Plos One*, 8(3).

35. Zaman, M. S., C. H. Moon, K. N. Bozhilov, & E. D. Haberer (2013), Phage-directed synthesis of copper sulfide: Structural and optical characterization, *Nanotechnology*, 24(32).
36. Wang, W., S. R. Guo, M. Penchev, I. Ruiz, K. N. Bozhilov, D. Yan, M. Ozkan, & C. S. Ozkan (2013), Three dimensional few layer graphene and carbon nanotube foam architectures for high fidelity supercapacitors, *Nano Energy*, 2(2), 294-303.
37. Wang, W., S. R. Guo, K. N. Bozhilov, D. Yan, M. Ozkan, & C. S. Ozkan (2013), Intertwined nanocarbon and manganese oxide hybrid foam for high-energy supercapacitors, *Small*, 9(21), 3714-3721.
38. Wang, Q. Q., M. Nemoto, D. S. Li, J. C. Weaver, B. Weden, J. Stegemeier, K. N. Bozhilov, L. R. Wood, G. W. Milliron, C. S. Kim, E. DiMasi, & D. Kisailus (2013), Phase transformations and structural developments in the radular teeth of cryptochiton stelleri, *Advanced Functional Materials*, 23(23), 2908-2917.
39. Jenkins, D. M., G. Della Ventura, R. Oberti, & K. Bozhilov (2013), Synthesis and characterization of amphiboles along the tremolite-glaucophane join, *American Mineralogist*, 98(4), 588-600.
40. Guo, S. R., D. D. Bao, S. Upadhyayula, W. Wang, A. B. Guvenc, J. R. Kyle, H. Hosseinibay, K. N. Bozhilov, V. I. Vullev, C. S. Ozkan, & M. Ozkan (2013), Photoinduced electron transfer between pyridine coated cadmium selenide quantum dots and single sheet graphene, *Advanced Functional Materials*, 23(41), 5199-5211.
41. Bozhilov, K. N. (2013), Structures and microstructures of non-classical pyriboles, in *Minerals at the nanoscale*, edited by F. Nieto & K. J. T. Livi, pp. 109-152, Mineralogical Society Great Britain & Ireland, London.
42. Zuo, F., K. Bozhilov, R. J. Dillon, L. Wang, P. Smith, X. Zhao, C. Bardeen, & P. Y. Feng (2012), Active facets on titanium(iii)-doped tio2: An effective strategy to improve the visible-light photocatalytic activity, *Angewandte Chemie-International Edition*, 51(25), 6223-6226.
43. Paul, R. K., S. Badhulika, S. Niyogi, R. C. Haddon, V. M. Boddu, C. Costales-Nieves, K. N. Bozhilov, & A. Mulchandani (2011), The production of oxygenated polycrystalline graphene by one-step ethanol-chemical vapor deposition, *Carbon*, 49(12), 3789-3795.
44. Itani, L., Bozhilov, K.N., Clet, G., Delmotte, L., and Valtchev, V. (2011) *Factors That Control Zeolite L Crystal Size. Chemistry – A European Journal*, 17(7), 2199-2210.
45. Green, H.W., Dobrzhinetskaya, L.F., and Bozhilov, K.N. (2010) *The Alpe Arami Story: Triumph of Data over Prejudice. Journal of Earth Science*, 21(5), 731-743.

46. Kim, J., Y. Rheem, B. Yoo, Y. Chong, K. N. Bozhilov, D. Kim, M. J. Sadowsky, H. G. Hur, and N. V. Myung (2010), *Peptide-mediated shape- and size-tunable synthesis of gold nanostructures*, **Acta Biomaterialia**, 6(7), 2681-2689.
47. Singh, S., Bozhilov, K., Mulchandani, A., Myung, N., and Chen, W. (2010) *Biologically programmed synthesis of core-shell CdSe/ZnS nanocrystals*. **Chemical Communications**, 46(9), 1473-1475.
48. Weaver, J.C., Wang, Q.Q., Miserez, A., Tantuccio, A., Stromberg, R., Bozhilov, K.N., Maxwell, P., Nay, R., Heier, S.T., DiMasi, E., and Kisailus, D. (2010) *Analysis of an ultra hard magnetic biomineral in chiton radular teeth*. **Materials Today**, 13(1-2), 42-52.
49. Gao, F.F., Jaber, M., Bozhilov, K., Vicente, A., Fernandez, C., and Valtchev, V. (2009) *Framework Stabilization of Ge-Rich Zeolites via Postsynthesis Alumination*. **Journal of the American Chemical Society**, 131(45), 16580-16586.
50. Ams, B.E., Jenkins, D.M., Boero-Goates, J., Morcos, R.M., Navrotsky, A., and Bozhilov, K.N. (2009) *Thermochemistry of a synthetic Na-Mg-rich triple-chain silicate: Determination of thermodynamic variables*. **American Mineralogist**, 94(8-9), 1242-1254.
51. Bozhilov, K.N., Xu, Z., Dobrzhinetskaya, L.F., Jin, Z.M., and Green, H.W. (2009) *Cation-deficient phlogopitic mica exsolution in diopside from garnet peridotite in SuLu, China*. **Lithos**, 109(3-4), 304-313.
52. Itani, L., Liu, Y., Zhang, W.P., Bozhilov, K.N., Delmotte, L., and Valtchev, V. (2009) *Investigation of the Physicochemical Changes Preceding Zeolite Nucleation in a Sodium-Rich Aluminosilicate Gel*. **Journal of the American Chemical Society**, 131(29), 10127-10139.
53. Khan, M.I., Wang, X., Jing, X.Y., Bozhilov, K.N., and Ozkan, C.S. (2009) *Study of a Single InSb Nanowire Fabricated via DC Electrodeposition in Porous Templates*. **Journal of Nanoscience and Nanotechnology**, 9(4), 2639-2644.
54. Khan, M.I., Wang, X., Bozhilov, K.N., and Ozkan, C.S. (2008), "Templated Fabrication of InSb Nanowires for Nanoelectronics," **Journal of Nanomaterials**, vol. 2008, Article ID 698759, 5 pages, 2008. doi:10.1155/2008/698759
55. Khan, M.I., Penchev, M., Jing, X.Y., Wang, X., Bozhilov, K.N., Ozkan, M., and Ozkan, C.S. (2008) *Electrochemical Growth of InSb Nanowires and Report of a Single Nanowire Field Effect Transistor*. **Journal of Nanoelectronics and Optoelectronics**, 3(2), 199-202.
56. Khan, M. I., X. Wang, K. N. Bozhilov, & C. S. Ozkan (2008), Electrochemical fabrication of insb nanowires using porous alumina membrane and their characterization, **MRS Online Proceedings Library**, v.1080.
57. Kum, M.C., Yoo, B.Y., Rheem, Y., Bozhilov, K.N., Chen, W., Mulchandani, A., and Myung, N.V. (2008) *Synthesis and characterization of cadmium telluride*

- nanowire. Nanotechnology*, 19(32), 7.
58. Kang, S.H., Bozhilov, K.N., Myung, N.V., Mulchandani, A., and Chen, W. (2008) *Microbial synthesis of CdS nanocrystals in genetically engineered e-coli. Angewandte Chemie-International Edition*, 47(28), 5186-5189.
59. Xiao, F., B. Yoo, K.N. Bozhilov, K.H. Lee, and N.V. Myung, (2007) *Electrodeposition of single-crystal cubes of lead telluride on polycrystalline gold substrate. Journal of Physical Chemistry C*, 111(30): p. 11397-11402.
60. Wang, X.Q., R. Liu, M.M. Waje, Z.W. Chen, Y.S. Yan, K.N. Bozhilov, and P.Y. Feng, (2007) *Sulfonated ordered mesoporous carbon as a stable and highly active protonic acid catalyst. Chemistry of Materials*, 19(10): p. 2395-2397.
61. Yoo, B., F. Xiao, K.N. Bozhilov, J. Herman, M.A. Ryan, and N.V. Myung, (2007) *Electrodeposition of thermoelectric superlattice nanowires. Advanced Materials*. 19(2): p. 296-299.
62. Valtchev, V., S. Rigolet, and K.N. Bozhilov, (2007) *Gel evolution in a FAU-type zeolite yielding system at 90 °C. Microporous and Mesoporous Materials*. 101(1-2): p. 73-82.
63. Singh, K.V., A.A. Martinez-Morales, G.T.S. Andavan, K.N. Bozhilov, and M. Ozkan, (2007) *A simple way of synthesizing single-crystalline semiconducting copper sulfide nanorods by using ultrasonication during template-assisted electrodeposition. Chemistry of Materials*. 19: p. 2446-2454.
64. Liu, L., J. Zhang, H.W. Green, Z.M. Jin, and K.N. Bozhilov, (2007) *Evidence of Former Stishovite in Metamorphosed Sediments: Exhumation from >300 km. Earth and Planetary Science Letters*. 263: p. 180-191.
65. Bozhilov, K.N., and Jenkins, D.M. (2007) *Analytical electron microscopy of tremolite*. In A. Mendez-Vilas, and J. Dias, Eds. **Modern Research and Educational Topics in Microscopy**, p. 616 - 625. Formatex, Badajoz, Spain.
66. Bozhilov, K.N., D. Brownstein, and D.M. Jenkins, (2007) *Biopyrite Evolution During Tremolite Synthesis from Dolomite and Quartz in CO<sub>2</sub>-H<sub>2</sub>O Fluid. The American Mineralogist*. 92: p. 898-908.
67. Zhang, J.F., H.W. Green, and K.N. Bozhilov, *Rheology of omphacite at high temperature and pressure and significance of its lattice preferred orientations. Earth and Planetary Science Letters*, 2006. 246(3-4): p. 432-443.
68. Wang, X.Q., K.N. Bozhilov, and P.Y. Feng, *Facile preparation of hierarchically porous carbon monoliths with well-ordered mesostructures. Chemistry of Materials*, 2006. 18(26): p. 6373-6381.
69. Valtchev, V.P., L. Tosheva, and K.N. Bozhilov, *Synthesis of zeolite nanocrystals at room temperature. Langmuir*, 2005. 21(23): p. 10724-10729.
70. Valtchev, V.P., K.N. Bozhilov, M. Smayhi, and L. Tosheva, *Room temperature synthesis: an efficient way for studying the zeolite formation. Molecular Sieves:*

**From Basic Research to Industrial Applications, Pts A and B, 2005. 158:** p. 73-80.

71. Valtchev, V.P. and K.N. Bozhilov, *Evidences for zeolite nucleation at the solid-liquid interface of gel cavities*. **Journal of the American Chemical Society**, 2005. **127**(46): p. 16171-16177.
72. Driscall, J., D.M. Jenkins, M.D. Dyar, and K.N. Bozhilov, *Cation ordering in synthetic low-calcium actinolite*. **American Mineralogist**, 2005. **90**(5-6): p. 900-911.
73. Zhang, J., H.W. Green, II, K. Bozhilov, and Z. Jin, *Faulting introduced by precipitation of water at grain boundaries in hot subducting oceanic crust*. **Nature** (London), 2004. **428**(6983): p. 633-636.
74. Valtchev, V.P. and K.N. Bozhilov, *Transmission electron microscopy study of the formation of FAU-type zeolite at room temperature*. **Journal of Physical Chemistry B**, 2004. **108**(40): p. 15587-15598.
75. Ravindran, S., K.N. Bozhilov, and C.S. Ozkan, *Self assembly of ordered artificial solids of semiconducting ZnS capped CdSe nanoparticles at carbon nanotube ends*. **Carbon**, 2004. **42**(8-9): p. 1537-1542.
76. Li, S.A., Z.J. Li, K.N. Bozhilov, Z.W. Chen, and Y.S. Yan, *TEM investigation of formation mechanism of monocystal-thick b-oriented pure silica zeolite MFI film*. **Journal of the American Chemical Society**, 2004. **126**(34): p. 10732-10737.
77. Dobrzhinetskaya, L.F., H.W. Green, A.P. Renfro, K.N. Bozhilov, D. Spengler, and H.L.M. van Roermund, *Precipitation of pyroxenes and Mg<sub>2</sub>SiO<sub>4</sub> from majoritic garnet: simulation of peridotite exhumation from great depth*. **Terra Nova**, 2004. **16**(6): p. 325-330.
78. Bozhilov, K.N., D.M. Jenkins, and D.R. Veblen, *Pyribole evolution during tremolite synthesis from oxides*. **American Mineralogist**, 2004. **89**(1): p. 74-84.
79. Torabinejad, M., A.A. Khademi, J. Babagoli, J.B. Cho, W. Ben Johnson, K. Bozhilov, J. Kim, and S. Shabahang, *A new solution for the removal of the smear layer*. **Journal of Endodontics**, 2003. **29**(3): p. 170-175.
80. Jenkins, D.M., K.N. Bozhilov, and K. Ishida, *Infrared and TEM characterization of amphiboles synthesized near the tremolite-pargasite join in the ternary system tremolite-pargasite-cummingtonite*. **American Mineralogist**, 2003. **88**(7): p. 1104-1114.
81. Jenkins, D.M. and K.N. Bozhilov, *Stability and thermodynamic properties of ferro-actinolite: A re-investigation*. **American Journal of Science**, 2003. **303**(8): p. 723-752.
82. Hamer, M., R.C. Graham, C. Amrhein, and K.N. Bozhilov, *Dissolution of ripidolite (Mg, Fe-chlorite) in organic and inorganic acid solutions*. **Soil Science Society of America Journal**, 2003. **67**(2): p. 654-661.

83. Dobrzhinetskaya, L.F., H.W. Green, K.N. Bozhilov, T.E. Mitchell, and R.M. Dickerson, *Crystallization environment of Kazakhstan microdiamond: evidence from nanometric inclusions and mineral associations*. **Journal of Metamorphic Geology**, 2003. **21**(5): p. 425-437.
84. Bozhilov, K.N., H.W. Green, and L.F. Dobrzhinetskaya, *Quantitative 3D measurement of ilmenite abundance in Alpe Arami olivine by confocal microscopy: Confirmation of high-pressure origin*. **American Mineralogist**, 2003. **88**(4): p. 596-603.
85. Huang, L.M., H.T. Wang, Z.B. Wang, A. Mitra, K.N. Bozhilov, and Y.S. Yan, *Nanowire arrays electrodeposited from liquid crystalline phases*. **Advanced Materials**, 2002. **14**(1): p. 61-64.
86. Bozhilov, K.N. and B.W. Evans, *Ferroanthophyllite in Rockport grunerite: A transmission electron microscopy study*. **American Mineralogist**, 2001. **86**(10): p. 1252-1260.
87. Green, H.W., L. Dobrzhinetskaya, and K.N. Bozhilov, *Mineralogical and experimental evidence for very deep exhumation from subduction zones*. **Journal of Geodynamics**, 2000. **30**(1-2): p. 61-76.
88. Torres-Martinez, C.L., L. Nguyen, R. Kho, W. Bae, K. Bozhilov, V. Klimov, and R.K. Mehra, *Biomolecularly capped uniformly sized nanocrystalline materials: glutathione-capped ZnS nanocrystals*. **Nanotechnology**, 1999. **10**(3): p. 340-354.
89. Dobrzhinetskaya, L., K.N. Bozhilov, and H.W. Green, *The solubility of TiO<sub>2</sub> in olivine: implications for the mantle wedge environment*. **Chemical Geology**, 1999. **160**(4): p. 357-370.
90. Bozhilov, K.N., H.W. Green, and L. Dobrzhinetskaya, *Clinoenstatite in Alpe Arami peridotite: Additional evidence of very high pressure*. **Science**, 1999. **284**(5411): p. 128-132.
91. Green, H.W., L. Dobrzhinetskaya, and K. Bozhilov, *Determining the origin of ultrahigh-pressure Iherzolites - Response*. **Science**, 1997. **278**(5338): p. 704-707.
92. Bozhilov, K.N., *Transmission electron microscopy study of crystal growth and defect formation: calcic amphiboles and hollandite*, in *Earth and Planetary Sciences*. 1997, The Johns Hopkins University Baltimore, MD, USA. p. 157.
93. Dimov, V., V. Iamakov, and K. Bozhilov, *Automated Identification of Monocrystal Microphases in Transmission Electron-Microscopy (TEM)*. **Computers & Geosciences**, 1994. **20**(9): p. 1267-1273.
94. Bozhilov, K.N. and V.P. Valtchev, *Transmission Electron-Microscopy Characterization of a Large-Pore Titanium Silicate*. **Materials Research Bulletin**, 1993. **28**(11): p. 1209-1214.
95. Tarassov, M.P., K.N. Bozhilov, and O.E. Petrov, *Iron-Containing X-Ray Amorphous Tungsten Ochre from Grantcharitza Deposit (Western Rhodopes) -*



*XRD and TEM Study. Dokladi Na Bulgarskata Akademiya Na Naukite*, 1991. **44**(12): p. 65-68.

96. Stoyanova, R., S. Angelov, and K. Bozhilov, *Localization of CO<sub>2</sub>- Anion Radicals in Strontium Carbonate Obtained by Thermal-Decomposition of Strontium Oxalate*. **Journal of Physics and Chemistry of Solids**, 1990. **51**(10): p. 1163-1169.
97. Bozhilov, K., V. Dimov, A. Panov, and H. Haefke, *Thin-Film Growth of Silver Sulfide .2. Structure Models of Epitaxial Contact Layers*. **Thin Solid Films**, 1990. **190**(1): p. 129-138.

### Proceedings and Abstracts

1. Prikhodko, S. V., D. G. Savvakina, P. E. Markovskiy, O. O. Stasiuk, N. Enzinger, F. Deley, B. Flipo, A. A. Shirzadi, H. M. Davies, P. D. Davies, J. Penny, K. Bozhilov, & O. M. Ivasishin (2019), Layered structures of ti-6al-4v alloy and metal matrix composites on its base joint by diffusion bonding and friction welding, ***Microscopy and Microanalysis***, 25(S2), 812-813.
2. Bozhilov, K. N., & V. Valtchev (2019), Zeolite crystal growth analysis by dissolution, ***Microscopy and Microanalysis***, 25(S2), 816-817.
3. Bozhilov, K.N. 2009 Seeing Through Gels: Analytical Electron Microscopy of Zeolite Nucleation and Growth. 3rd International Symposium on Advanced Micro- and Mesoporous Materials, 6-9, 09, 2009, Albena, Bulgaria.
2. Bozhilov, K.N. 2009 Comparison of experimental and calculated spatial resolution in X-ray microanalysis of oxide and silicate minerals. *Microscopy and Microanalysis*, v. 15, Suppl I, p.101, 67th Annual meeting of the MSA, July 26-30, 2009, Richmond, VA, USA.
2. Khan, I.M., Wang, X., Bozhilov, K.N and Ozkan, C.S. 2008 "Electrochemical fabrication of InSb nanowires using Porous Alumina Membrane and their characterization" March 26, MRS Spring.
3. Valtchev, V. P. and Bozhilov, K. N. 2006 Gel Transformation during Precursor Stages of Zeolite Nucleation International Symposium on Zeolites and Microporous Crystal (ZMPC2006) July 31 – August 2, Yonago, Japan, OB307
4. Valtchev, V. P., Bozhilov, K. N., Smaïhi, M. Tosheva, L. 2005 Room temperature synthesis: an efficient way for studying the zeolite formation 3rd FEZA Conference, August 23-26, Prague, Czech Republic, OP-2

5. Bozhilov K N., Xu Z., Green H.W., Dobrzhinetskaya L, 2004 Polytypes and Stacking Disorder in Mica from Sulu, China, 32nd International Geological Congress, 62-5, Florence.
6. Bozhilov, K N; Xu, Z; Green, HW; Dobrzhinetskaya, L. 2003 Exsolution of a phlogopite-10Å phase solid solution from diopside in UHPM garnet peridotite from Sulu, China, Geological Society of America, vol.35, no.6, pp.535, Nov
7. Bozhilov, K N, Green, H W, Dobrzhinetskaya, L F, and Xu, Z 2002 Exsolution of K-rich Phyllosilicate in Diopside from SuLu Garnet Peridotite. Eos, Transactions, American Geophysical Union, vol.83, no.47, Suppl.
8. Zhang, J, Green, H W, Bozhilov, K N, and Jin, Z 2002 Dehydration Induced Faulting in Eclogite at High Pressure: A Mechanism for Intermediate-Focus Earthquakes. Eos, Transactions, American Geophysical Union, vol.83, no.47, Suppl.
9. Jenkins, D.M., and Bozhilov, K. N. 2002 Re-Investigation Of The Upper-Thermal Stability Of Ferro-Actinolite, Geological Society of America, Abstracts with Programs.
10. Valtchev, V.P. and Bozhilov, K. N. 2002 Study on the Nucleation and Crystal Growth of FAU-type Zeolite at Room Temperature. 2nd Conference of the Federation Of European Zeolite Associations, 1-5 September, Giardini Naxos, Italy, RRR022.
11. Valtchev, V. P. and Bozhilov, K. N. 2002 TEM investigation of the formation of FAU-type zeolite at room temperature. 14 Deutsche Zeolith-Tagung, 6 – 8 March, 2002, Frakfurth, Germany, Book of Abstracts KV21.
12. Bozhilov, K.N., H. W. Green II, and L. Dobrzhinetskaya, 2001. 3D Quantitative Confocal Laser Microscopy of Ilmenite Volume Distribution in Alpe Arami Olivine. Eos, Transactions, American Geophysical Union, vol.82, no.47, Suppl.
13. Zhang, J, H.W. Green, Z. Jin, and K.N. Bozhilov 2001 Rheological Implications of Dissolution of Hydroxyl in Eclogite. Eos, Transactions, American Geophysical Union, vol.82, no.47, Suppl.
14. Bozhilov, K.N., and B.W. Evans. 1999 A HRTEM Study Of Grunerite And Ferroanthophyllite From Rockport, Massachusetts. Eos, Transactions, American Geophysical Union, vol.80, no.46, Suppl., pp.1107, 16 Nov 1999.
15. Jenkins, D. M. and Bozhilov, K. N. 1999 TEM and XRD characterization of synthetic ferro-actinolite. Abstracts with Programs - Geological Society of

America, vol.31, no.7, pp.357

16. Bozhilov, K.N., H.W. Green II, and L. Dobrzhinetskaya 1998 High-pressure clinoenstatite in the Alpe Arami peridotite. EOS Transactions AGU v.79, n.45, p. F835.
17. Dobrzhinetskaya, L., H.W. Green II, and K.N. Bozhilov 1998 Titanium dissolution and precipitation in olivine at high pressure and temperature. EOS Transactions AGU v.79, n.45, p. F972.
18. Jenkins, D.M., Sharma, A., and Bozhilov, K. 1997 Amphibole synthesis in the tremolite-pargasite-cummingtonite ternary system: Implications for the hornblende miscibility gap. Geological Society of America, Abstracts with Programs, 29:A-210
19. Bozhilov, K.N., Jenkins, D.M., and Veblen, D.R.. 1995 C-centering violations in synthetic calcic amphiboles. GEOLOGICAL SOCIETY OF AMERICA, 1995 Annual Meeting; Abstracts with Programs - Geological Society of America; Vol. 27, no. 6; p. 441.
20. Bozhilov, K.N., Veblen, D.R., and Dimov, V. 1994 Mechanism of intergrowth formation in hollandite as revealed by electron microscopy. Agu 1994 Spring Meeting; Eos, Transactions, American Geophysical Union; Vol. 75, no. 16 Suppl.; p. 191
21. Bozhilov, K.N., Jenkins, D.M., And Veblen, D.R. 1994 Reaction Mechanism For Tremolite Formation From Diopside + Enstatite + Quartz + H<sub>2</sub>O. Geological Society Of America, 1994 Annual Meeting; Abstracts With Programs - Geological Society Of America; Vol. 26, No. 7; P. 261
22. Bozhilov, K.N., Jenkins, D.M., and Veblen, D.R. 1993 TEM/AEM observations of chain silicate evolution during synthesis of tremolite. AGU 1993 Spring Meeting; Eos, Transactions, American Geophysical Union; Vol. 74, no. 16 Suppl.; p. 166
23. Imakov, V., K.N. Bozhilov, and V.I. Dimov. 1992 Interpretation of superstructure scattering of electrons in romanechite using multi-slice method. Proceedings of the 14th European Crystallographic Meeting, Nijmegen, The Netherlands.
24. Bozhilov, K.N. , V.I. Dimov, and M.N. Maleev. 1991 Characterization of tunnel-structure manganese oxides - 1991 Proceedings of the Autumn School for Electron Microscopy, Halle/Saale, Germany, p.31-32
25. Bozhilov, K.N., and V.I. Dimov 1990 Analytical electron microscopy of birnessite. Proceedings of the 14th All-Union Conference for Electron Microscopy, Suzdahl,

USSR, p.7

26. Bozhilov, K.N. and V.I. Dimov. 1990 Additional cation ordering in romanechite. Proceedeengs of the 14th All-Union Conference for Electron Microscopy, Suzdahl, USSR, p.3-4
27. Bozhilov, K. N. and V.I. Dimov 1988 TEM study of real structure defects in molybdenite. Proceedeengs of the National Conference for Electron Microscopy, Albena, Bulgaria., p.11