

PUBLICATIONS

J. Schliesser, K. Lilova, E. M. Pierce, L. Wu, D. M. Missimer, B. F. Woodfield, A. Navrotsky (2017) *Low temperature heat capacity and thermodynamic functions of anion bearing sodalites $Na_8Al_6Si_6O_{24}X_2$ ($X=SO_4, ReO_4, Cl, I$)*, *Journal of Chemical Thermodynamics*, 114, 14-24

E. M. Pierce, K. Lilova, D. M. Missimer, W. W. Lukens, L. Wu, J. Fitts, C. Rawn, A. Huq, D. N. Leonard, J. R. Eskelsen, B. F. Woodfield, C. M. Jantzen, A. Navrotsky (2016) *Structure and thermochemistry of perrhenate sodalite and mixed guest perrhenate/pertechnetate sodalite*, *Environmental science & technology*, 51 (2), 997–1006

S.K. Sahu, B. Huang, K. Lilova, B.F. Woodfield, A. Navrotsky (2015) *Thermodynamics of $Fe_3O_4-Co_3O_4$ and $Fe_3O_4-Mn_3O_4$ spinel solid solutions at the bulk and nanoscale*, *Physical Chemistry Chemical Physics*, 2015,17, 22286-22295

A. Mielewczyk-Gryn, S. Wachowski, K.I. Lilova, X. Guo, M. Gazda, A. Navrotsky (2015) *Influence of antimony substitution on spontaneous strain and thermodynamic stability of lanthanum orthoniobate*, *Ceramics International*, 41 (2), 2128-2133

K.I. Lilova, C.I. Pearce, K.M. Rosso, A. Navrotsky (2014) *Energetics of Spinel in the Fe — Ti — O System at the Nanoscale*, *European Journal of Chemical Physics and Physical Chemistry*, 15, 3655-3662

J.V. Zaikina, E. Muthuswamy, K.I. Lilova, Z.M. Gibbs, M. Zeilinger, G.J. Snyder, T.F. Fässler, A. Navrotsky, S.M. Kauzlarich (2014) *Thermochemistry, morphology, and optical characterization of germanium allotropes*, *Chemistry of Materials*, 26, 3263 – 3271

K.I. Lilova, R. Hord, L. Alff, B. Albert, A. Navrotsky (2013) *Thermodynamic study of orthorhombic T^x and tetragonal T' lanthanum cuprate, La_2CuO_4* , *Journal of Solid State Chemistry*, 91-94

S.K. Rakshit, S.C. Parida, K. Lilova, A. Navrotsky (2013) *Thermodynamic studies of $CaLaFe_{11}O_{19}(s)$* , *Journal of Solid State Chemistry*, 201, 68–74

C. L. Snow, K.I. Lilova, A.V. Radha, Q. Shi, S. Smith, A. Navrotsky, J. Boerio-Goates, B.F. Woodfield (2013) *Heat capacity and thermodynamics of a synthetic two-line ferrihydrite, $FeOOH \cdot 0.027H_2O$* , *Journal of Chemical Thermodynamics*, 58, 307 – 314

K.I. Lilova, C. I. Pearce, C. Gorski, K. M. Rosso, A. Navrotsky (2012), *Thermodynamics of the Magnetite-Ulvöspinel ($Fe_3O_4-Fe_2TiO_4$) Solid Solution*, *American Mineralogist*, 97, 1330 – 1338

K. I. Lilova, K. Shih, C.-W. Pao, J.-F. Lee and A. Navrotsky (2012), *Thermodynamics of $NiAl_2O_4-NiFe_2O_4$ solid solutions*, *Journal of American Ceramic Society*, 95 (1), 423 – 430

K. I. Lilova, F. Xu, K. M. Rosso, C. I. Pearce, S. Kamali and A. Navrotsky (2012), ***Oxide melt solution calorimetry of Fe(II)-bearing oxides and application to the magnetite – maghemite (Fe₃O₄-Fe_{8/3}O₄) system***, *American Mineralogist*, 97 (1), 164 – 175

G.P. Vassilev, J. Romanowska, D.F. Soares, P. Docheva, J. Miettinen, P. Šebo, J.-C. Tedenac, P. Brož, V.D. Gandova, N.P. Milcheva, K. Lilova, G. Wnuk, J. Buršík, D. Živkovič (2012), ***GP3 - Design, process and control in a multiscale domain of Cu-Ni-X-Y (X, Y=Sn, Bi, Zn, Ti) based alloys***, In A.Kroupa. *Handbook of High-Temperature Lead-Free Solders: Group Project Reports, Vol.3. 1. vydání. Brno, Česká Republika: COST office, Brussels, Belgium, 2012. s. 59-86, 28 s. Volume 3. ISBN 978-80-905363-3-3*

A. Navrotsky, C. Ma, K. Lilova, and N. Birkner, (2010) ***Nanophase Transition Metal Oxides Show Large Thermodynamically Driven Shifts in Oxidation-Reduction Equilibria***, *Science* 330, 199 – 201

K. Lilova, A. Navrotsky, B. Melot and R. Seshadri (2010) ***Thermodynamics of CoAl₂O₄-CoGa₂O₄ solid solutions***, *Journal of Solid State Chemistry* 183 (6), 1266 – 1271

V. Gandova, D. Soares, K. Lilova, J.C. Tedenac, G. P. Vassilev (2010) ***Phase equilibria in the Sn-Zn-Ni system***, *International journal of materials research*, 102 (3), 257 – 268

V. Gandova, K. Lilova, H. Malakova, B. Huber, N. Milcheva, H. Ipser, J. Vrestal, and G. Vassilev, (2010) ***On the synthesis of Bi-based precursors for lead-free solders development***, *Journal of Mining and Metallurgy Section B: Metallurgy*, 46 (1) B, 11 – 24

G. Vassilev, K. Lilova, and J.C. Gachon, (2009) ***Phase diagram investigations of the Ni-Sn-Bi system***, *Journal of Alloys and Compounds*, Vol. 469, Issues 1-2, 264 – 269

G. Vassilev, K. Lilova, and J.C. Gachon (2008) ***Calorimetric and phase equilibria studies of the Ni-Sn-Bi system***, *Crystal Research and Technology*, 43, 9, 980 – 985

G.P. Vassilev and K.I. Lilova, (2007) ***Notes on some supposed transitions of the phase NiBi***, *Crystal Research and Technolog.*, 42, 237

G.P. Vassilev, K.I. Lilova, and J.C. Gachon, (2007) ***Calorimetric and phase diagram studies of the Co-Sn system***, *Intermetallics*, 15 1156–1162

G. Vassilev, K. Lilova, and J.C. Gachon, (2007) ***Supplementary X-ray studies of the Ni-Sn-Bi system***, *Journal of Mining and Metallurgy Section B: Metallurgy* 43(2)

G.P. Vassilev and K.I. Lilova, (2006) ***Contribution to the thermodynamics of the Co-Sn system***, *Archives of Metallurgy and Materials*, Vol. 51 (3) 365-374.

G.P. Vassilev, K.I. Lilova, and J.C. Gachon, (2006) ***Enthalpies of formation of Ni-Sn compounds***, *Thermochimica Acta*, 447 (1) 106 – 108.

AWARDS

Certificate of Merit for the First Platform Presentation titled “Energetics of Iron Spinel at Bulk and Nanoscale”, given before the Division of Environmental Chemistry at the 244th National Meeting of the American Chemical Society, 2012

Nomination for “*2012 Award for Excellence in Postdoctoral Research*” at University of California, Davis

Institute for Complex Adaptive Matter (ICAM) Junior Exchange Award for research related travel from Sofia, Bulgaria to Davis, California, USA from November 3, 2008 to April 30, 2009

EDITOR

Associated Editor of “Spinel Renaissance: The past, present, and future of those ubiquitous minerals and materials” Special Section in *American Mineralogist*

Co-editor of “Fuel Cells” section in *Frontiers in Energy Research*

PEER REVIEWER

American Mineralogist

Solid State Sciences

Physics and Chemistry of Minerals

American Journal of Science

Journal of Alloys and Compounds

INVITED TALKS

“Experimental Studies of Advanced Materials at Nanoscale Using Calorimetry and Thermal Analysis” at Pontifical Bolivarian University, Colombia, 2015

“Structural and Thermochemical Studies of Feldspathoid and Spinel Minerals” at California State University, Chico, 2014

“Thermodynamics of Spinel Solid Solutions” at University of California, Santa Barbara, 2011