

LIST OF PUBLICATIONS (1997 – PRESENT)

Prof. Svilen Bobev – University of Delaware

University of Delaware

(the names of the contributing undergraduate researchers are underlined)

186. "Yet Again, New Compounds Found in Systems with Known Binary Phase Diagrams. *Synthesis, Crystal and Electronic Structure of Nd_3Bi_7 and Sm_3Bi_7* "
Ovchinnikov, A.; Makongo, J. P. A.; **Bobev, S.** *Chem. Comm.* **2018**, zz, xyz – SUBMITTED 03/29/2018 (themed issue *New Molecules and Materials from the f-block*).
185. "Rare-earth Metal Substitutions in $Ca_{9-x}RE_xMn_4Sb_4$ ($RE = La-Nd, Sm; x \approx 1$). *Synthesis and Characterization of a New Series of Narrow-Gap Semiconductors*"
Wang, Y.; **Bobev, S.** *Chem. Mater.* **2018**, 30, 3518 – doi: 10.1021/acs.chemmater.8b01316 – available online 05/04/2018.
184. "Niobium-bearing Arsenides and Germanides from Elemental Mixtures not Involving Niobium: A New Twist to an Old Problem in Solid-state Synthesis"
Baranets, S.; He, H.; **Bobev, S.** *Acta Cryst. C* **2018**, 74, 623 – doi: 10.1107/S2053229618005739 – available online 04/23/2018.
183. "Intricate Li–Sn Disorder in Rare-earth Metal-Lithium-Stannides. *Crystal Chemistry of $RE_3Li_{4-x}Sn_{4+x}$ ($RE = La-Nd, Sm; x < 0.3$) and $Eu_7Li_{8-x}Sn_{10+x}$ ($x \approx 2.0$)*"
Suen, N.-T.; Guo, S.-P.; Hoos, J.; **Bobev, S.** *Inorg. Chem.* **2018**, 57, 5632 – doi: 10.1021/acs.inorgchem.8b00583 – available online 04/20/2018.
182. "Crystal Structure of La_3TiBi_5 from Single-crystal X-ray Diffraction"
Ovchinnikov, A.; **Bobev, S.** *Acta Cryst. C* **2018**, 74, 618 – doi: 10.1107/S205322961800565X – available online 04/23/2018.
181. "On the Effect of Ga and In substitutions in the $Ca_{11}Bi_{10}$ and $Yb_{11}Bi_{10}$ Bismuthides Crystallizing in the Tetragonal $Ho_{11}Ge_{10}$ Structure Type"
Ovchinnikov, A.; **Bobev, S.** *Acta Cryst. C* **2018**, 74, 269 – doi: 10.1107/S2053229618001596 – available online 02/02/2018.
180. "Synthesis, Crystal and Electronic Structure of the Novel Titanium Bismuthides $Sr_5Ti_{12}Bi_{19+x}$, $Ba_5Ti_{12}Bi_{19+x}$, and $Sr_{5-\delta}Eu_{\delta}Ti_{12}Bi_{19+x}$ ($x \approx 0.5-1.0; \delta \approx 2.4, 4.0$)"
Ovchinnikov, A.; **Bobev, S.** *Eur. J. Inorg. Chem.* **2018**, 1266 – doi:10.1002/ejic.201701426 – available online 01/16/2018.
179. "Synthesis of 1T, 2H and 6R Germanane Polytypes"
Cultura, N. D.; Arguilla, M. Q.; Scudder, M. R.; Jiang, S.; **Bobev, S.**; Goldberger, J. E. *Chem. Mater.* **2018**, 30, 1335 – doi:10.1021/acs.chemmater.7b04990 – available online 02/02/2018.

178. "An Unusual Triple-decker Variant of the Tetragonal $BaAl_4$ -Structure Type. Synthesis, Structural Characterization and Chemical Bonding of $Sr_3Cd_8Ge_4$ and $Eu_3Cd_8Ge_4$ "
Suen, N.-T.; Huang, L.; Meyers, J. J.; **Bobev, S.** *Inorg. Chem.* **2018**, *57*, 833 – doi: 10.1021/acs.inorgchem.7b02781 – available online 12/26/2017.
177. "Crystal Chemistry and Magnetic Properties of the Solid Solutions $Ca_{14-x}RE_xMnBi_{11}$ ($RE = La-Nd, Sm, Gd-Ho$; $x \approx 0.6-0.8$)"
Ovchinnikov, A.; Prakash, J.; **Bobev, S.** *Dalton Trans.* **2017**, *46*, 16041 – doi: 10.1039/c7dt03715e – available online 11/05/2017.
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176. "Anodes for Lithium-ion Batteries Based on the Type-I Silicone Clathrate $Ba_8Al_{16}Si_{30}$ —Role of Processing on Surface Properties and Electrochemical Behavior"
Zhao, R.; **Bobev, S.**; Krishna, R.; Yang, T.; Weller, J. M.; Jing, H.; Chan, C. K. *ACS Appl. Mater. Interfaces* **2017**, *9*, 41246 – doi: 10.1021/acsami.7b12810 – available online 10/05/2017.
175. "The Ternary Alkaline-earth Metal Manganese Bismuthides Sr_2MnBi_2 and $Ba_2Mn_{1-x}Bi_2$ ($x \approx 0.1$)"
Ovchinnikov, A.; Saparov, B.; Xia, S.-Q.; **Bobev, S.** *Inorg. Chem.* **2017**, *56*, 12369 – doi: 10.1021/acs.inorgchem.7b01851 – available online 10/02/2017.
174. "Cu and Zn Substituted Silicon Clathrates with the Cubic Type-II Structure. Synthesis and Characterization of $Cs_8Na_{16}Cu_{3.8}Si_{132.2}$ and $Cs_8Na_{16}Zn_{6.9}Si_{129.1}$ "
Schäfer, M. C.; **Bobev, S.** *Z. Anorg. Allg. Chem.* **2017**, *643*, 1874 – doi: 10.1002/zaac.201700236 – available online 09/01/2017 (special issue dedicated to the 60th birthday of Prof. Thomas Schleid)
173. "On the Structures of the Rare-earth Metal Germanides from the Series $REAl_{1-x}Ge_3$ ($RE = Nd, Sm, Gd, Tb, Dy, Ho$; $0.6 < x < 0.9$). A Tale of Vacancies at the Al Sites and the Concomitant Structural Modulations"
Zhang, J.; Liu, Y.; Shek, C.-P.; Wang, Y.; **Bobev, S.** *Dalton Trans.* **2017**, *46*, 9253 – doi: 10.1039/c7dt01977g – available online 07/06/2017.
172. "Synthesis and Structural Determination of $Ce_6Cd_{23}Te$. A New Chalcogen-Containing Member of the $RE_6Cd_{23}T$ Family ($RE =$ rare-earth metal; $T =$ late group 14, 15, 16 elements)"
Desrosches, G.; **Bobev, S.** *Acta Cryst.* **2017**, *C73*, 121 – doi: 10.1107/S2053229617001243 – available online 01/26/2017.
171. "Synthesis and Structural Characterization of the Zintl Phases $Na_3Ca_3TrPn_4$, $Na_3Sr_3TrPn_4$, and $Na_3Eu_3TrPn_4$ ($Tr = Al, Ga, In$; $Pn = P, As, Sb$)"
Wang, Y.; Suen, N.-T.; Kunene, T.; Stoyko, S.; **Bobev, S.** *J. Solid State Chem.* **2017**, *249*, 160 – doi: 10.1016/j.jssc.2017.02.026 – available online 02/28/2017.
170. "Synthesis and Structural Characterization of $RE_6Cd_{23}T$ ($RE = La-Gd$; $T = Sn, Sb, Pb, and Bi$)"
Desrosches, G.; **Bobev, S.** *J. Solid State Chem.* **2017**, *246*, 203 – doi: 10.1016/j.jssc.2016.11.015 – available online 11/13/2016.

169. "*Cu₃Ru₆Sb₈—a New Ternary Antimonide with a New Structure Type*"
Prakash, J.; Suen, N.-T.; Lee, M.; Choi, E.-S.; Ibers, J. A.; **Bobev, S.** *Inorg. Chem. Front.* **2016**, *3*, 1616 – doi: 10.1039/c6qi00418k – available online 10/26/2016 (special issue dedicated to the 60th birthday of Prof. Mercuri G. Kanatzidis).
168. "*Crystal Structures of the Four New Quaternary Copper(I) Selenides A_{0.5}CuZrSe₃ and ACuYSe₃ (A = Sr, Ba)*"
Maier, S.; Prakash, J.; Berthebaud, D.; Perez, O.; **Bobev, S.**; Gascoin, F. *J. Solid State Chem.* **2016**, *242*, 1 – doi: 10.1016/j.jssc.2016.06.023 – available online 06/27/2016.
167. "*Synthesis and Structural Characterization of Ca₁₄Nb_xIn_{1-x}As₁₁ (x ≈ 0.85)*"
Wang, Y.; **Bobev, S.** *Solid State Phenom.* **2016**, *257*, 147 – doi: 10.4028/www.scientific.net/SSP.257.147 – available online 10/10/2016.
166. "*On the Extended Series of Quaternary Zintl Phases Ca₁₃REMnSb₁₁ (RE = La–Nd, Sm, Gd–Dy)*"
Prakash, J.; Stoyko, S.; Voss, L.; **Bobev, S.** *Eur. J. Inorg. Chem.* **2016**, 2912 – doi: 10.1002/ejic.201600306 – available online 05/18/2016.
165. "*Synthesis and Structural Characterization of the New Clathrates K₈Cd₄Ge₄₂, Rb₈Cd₄Ge₄₂, and Cs₈Cd₄Ge₄₂*"
Schäfer, M. C.; **Bobev, S.** *Materials* **2016**, *9*, 236 – doi: 10.3390/ma9040236 – available online 03/24/2016 (themed issue *Inorganic Clathrate Materials*).
164. "*The New Zintl Phases Eu₂₁Cd₄Sb₁₈ and Eu₂₁Mn₄Sb₁₈*"
Wang, Y.; Darone, G. M.; **Bobev, S.** *J. Solid State Chem.* **2016**, *238*, 303 – doi: 10.1016/j.jssc.2016.03.044 – available online 03/29/2016.
163. "*Synthesis, Crystal and Electronic Structures of the Pnictides AE₃TrPn₃ (AE = Sr, Ba; Tr = Al, Ga; Pn = P, As)*"
Stoyko, S.; Voss, L.; He, H.; **Bobev, S.** *Crystals* **2015**, *5*, 433 – doi: 10.3390/cryst5040433 – available online 09/24/2015.
162. "*Synthesis, Crystal and Electronic Structure of the Quaternary Sulfides Ln₂CuMS₅ (Ln = La, Ce; M = Sb, Bi)*"
Kussainova, A. M.; Akselrud, L. G.; Suen, N.-T.; Voss, L.; Stoyko, S.; **Bobev, S.** *J. Solid State Chem.* **2016**, *233*, 269 – doi: 10.1016/j.jssc.2015.10.039 – available online 10/27/2015.
161. "*Synthesis and Structure Determination of Seven Ternary Bismuthides. Crystal Chemistry of the RELi₃Bi₂ Family (RE = La–Nd, Sm, Gd, Tb)*"
Prakash, J.; Schäfer, M. C.; **Bobev, S.** *Acta Cryst.* **2015**, *C71*, 894 – doi:10.1107/S2053229615016393.
160. "*Abnormal Thermal Expansion, Multiple Transitions, Magnetocaloric Effect and Electronic Structure of Gd₆Co_{4.85}*"
Zhang, J.; Zheng, Z.; Shan, G.; **Bobev, S.**; Shek, C.-H. *J. Appl. Phys.* **2015**, *118*, 133903 – doi:10.1063/1.4931982 – available online 10/02/2015.

159. "Ba and Sr Binary Phosphides: Synthesis, Crystal Structures, and Bonding Analysis"
Dolyniuk, J.; He, H.; Ivanov, A.; Boldyrev, A.; **Bobev, S.**; Kovnir, K. *Inorg. Chem.* **2015**, *54*, 8608 – doi:10.1021/acs.inorgchem.5b01253 – available online 08/13/2015.
158. "Non-stoichiometric Compositions Arising from Synergistic Electronic and Size Effects. Syntheses, Crystal Chemistry and Electronic Properties of the $A_{14}Cd_{1+x}Pn_{11}$ Compounds ($0 \leq x \leq 0.3$; $A = Sr, Eu$; $Pn = As, Sb$)"
Makongo, J. P. A.; Darone, G. M.; Xia, S.-Q.; **Bobev, S.** *J. Mater. Chem. C* **2015**, *3*, 10388 doi: 10.1039/C5TC01605C – available online 07/29/2015 (themed issue *The Chemistry of Thermoelectric Materials*).
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157. "New Insights into the Application of the Valence Rules in Zintl Phases—Crystal and Electronic Structures of $Ba_7Ga_4P_9$, $Ba_7Ga_4As_9$, $Ba_7Al_4Sb_9$, $Ba_6CaAl_4Sb_9$, and $Ba_6CaGa_4Sb_9$ "
He, H.; Stoyko, S.; **Bobev, S.** *J. Solid State Chem.* **2016**, *236*, 116 – doi: 10.1016/j.jssc.2015.07.015 – available online 07/24/2015 (themed issue *Crystal Growth*).
156. "Synthesis, Crystal Structures, and Physical Properties of the New Zintl Phases $A_{21}Zn_4Pn_{18}$ ($A = Ca, Eu$; $Pn = As, Sb$)—Versatile Arrangements of $[ZnPn_4]$ Tetrahedra"
Suen, N.-T.; Wang, Y.; **Bobev, S.** *J. Solid State Chem.* **2015**, *227*, 204 – doi: 10.1016/j.jssc.2015.03.031 – available online 04/06/2015.
155. "Synthesis, Structure, Thermoelectric Properties, and Band Gaps of Alkali Metal Containing Type-I Clathrates: $A_8Ga_8Si_{38}$ ($A = K, Rb, Cs$) and $K_8Al_8Si_{38}$ "
Sui, F.; He, H.; **Bobev, S.**; Zhao, J.; Osterloh, F.; Kauzlarich, S. *Chem. Mater.* **2015**, *27*, 2812 – doi: 10.1021/cm504436v – available online 04/05/2015.
154. "Quaternary Pnictides with Complex, Non-centrosymmetric Structures. Synthesis and Structural Characterization of the New Zintl Phases $Na_{11}Ca_2Al_3Sb_8$, $Na_4CaGaSb_3$ and $Na_{15}Ca_3In_5Sb_{12}$ "
Wang, Y.; Stoyko, S.; **Bobev, S.** *Inorg. Chem.* **2015**, *54*, 1931 – doi: 10.1021/ic502822v – available online 02/04/2015.
153. "Structural Variability vs Structural Flexibility. A Case Study of $Eu_9Cd_{4+x}Sb_9$ and $Ca_9Mn_{4+x}Sb_9$ ($x \approx 1/2$)"
Liu, X.-C.; Wu, Z.; Xia, S.-Q.; Tao, X.-T. **Bobev, S.** *Inorg. Chem.* **2015**, *54*, 947 – doi: 10.1021/ic5023505 – available on-line 11/20/2014 (special issue dedicated to the memory of Prof. John D. Corbett).
152. "Synthesis and Crystal Structure of $RE_7Zn_{21+x}Si_{2-x}$ ($RE = Ce, Pr, Nd$; $0.09 < x < 0.95(1)$)"
Hoos, J.; Suen, N.-T.; **Bobev, S.** *Acta Cryst.* **2014**, *C70*, 945 – doi:10.1107/S2053229614019822.
151. "Synthesis and Crystal Chemistry of New Ternary Pnictides Containing Lithium—Adding Structural Complexity One Step at a Time"
Schäfer, M. C.; Suen, N.-T.; **Bobev, S.** *Dalton Trans.* **2014**, *43*, 16889 – doi:10.1039/c4dt02220 – available on-line 10/11/2014.

150. "New Lithium-containing Pnictides with 1-D Infinite Chains of Super-tetrahedral Clusters. Synthesis, Crystal and Electronic Structure of $Ba_4Li_2Cd_3Pn_6$ ($Pn = P, As$ and Sb)" Makongo, J. P. A.; You, T.-S.; He, H.; Suen, N.-T.; **Bobev, S.** *Eur. J. Inorg. Chem.* **2014**, 5113 – doi:10.1002/ejic.201402434 – available on-line 08/29/2014.
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149. "Structural Modulations in the Rare-earth Metal Digermanides $REAl_{1-x}Ge_2$ ($RE = Gd-Tm, Lu, Y$; $0.8 < x < 0.9$). Correlations Between Long- and Short-range Vacancy Ordering" Zhang, J.; Wang, J.; **Bobev, S.** *Inorg. Chem.* **2014**, 54, 722 – doi: 10.1021/ic501002j – available on-line 06/25/2014 (special issue dedicated to the memory of Prof. John D. Corbett).
148. "Calcium Substitution in Rare-Earth Metal Germanides with the Hexagonal Mn_3Si_3 Structure Type. Structural Characterization of the Extended Series $RE_{5-x}Ca_xGe_3$ ($RE =$ Rare-Earth Metal)" Suen, N.-T.; Broda, M.; **Bobev, S.** *J. Solid State Chem.* **2014**, 217, 142 – doi:10.1016/j.jssc.2014.05.015 – available on-line 05/21/2014.
147. "New Type-I and Type-II Clathrates in the Systems $Cs-Na-Ga-Si$, $Rb-Na-Ga-Si$, and $Rb-Na-Zn-Si$ " Schäfer, M. C.; **Bobev, S.** *Inorganics* **2014**, 2, 79 – doi:10.3390/inorganics2010079 – available on-line 03/18/2014.
146. "Dimorphism in La_5Ge_3 and Ce_5Ge_3 ? How Exploratory Syntheses Led to Surprising New Finds in the $La-Ge$ and $Ce-Ge$ Binary Phase Diagrams" Suen, N.-T.; **Bobev, S.** *Z. Anorg. Allg. Chem.* **2014**, 640, 805 – doi:10.1002/zaac.201300546 – available on-line 01/08/2014 (special issue dedicated to the 65th birthday of Prof. Reinhard Nesper).
145. "The $RELi_xSn_2$ ($RE = La-Nd, Sm, and Gd$; $0 \leq x < 1$) Series Revisited. Synthesis, Crystal Chemistry, and Magnetic Susceptibilities" Makongo, J. P. A.; Suen, N.-T.; Guo, S.-P.; Saha, S.; Greene, R.; Paglione, J.-P.; **Bobev, S. J.** *Solid State Chem.* **2014**, 211, 95 – doi:10.1016/j.jssc.2013.12.010 – available on-line 12/21/2013.
144. "On the Possibility for Rb- and Eu-cation Ordering in Type-I Clathrates. Synthesis and Homogeneity Range of the Novel Compounds $Rb_{8-x}Eu_x(In,Ge)_{46}$ ($0.6 \leq x \leq 1.8$)" Schäfer, M. C.; **Bobev, S.** *Acta Cryst.* **2013**, C69, 1457 – doi:10.1107/S0108270113030011.
143. "The Layered Antimonides $RELi_3Sb_2$ ($RE = Ce-Nd, Sm, Gd-Ho$). Filled Derivatives of the $CaAl_2Si_2$ Structure Type" Schäfer, M. C.; Suen, N.-T.; Raglione, M.; **Bobev, S. J.** *Solid State Chem.* **2014**, 210, 89 – doi: 10.1016/j.jssc.2013.11.002 – available on-line 11/11/2013.
142. "The Series $RE_3Li_2Sn_7$ ($RE = Ce, Pr, Nd, Sm$) Revisited. Crystal Structures of $RE_3Li_{2-x}Sn_{7+x}$ ($0 \leq x \leq 0.03(1)$)" Makongo, J. P. A.; **Bobev, S.** *Acta Cryst.* **2014**, C70, 2 – doi:10.1107/S0108270113029600.

141. "Synthesis and Structural Characterization of $RE_7Zn_{21}Tt_2$ ($RE = La-Nd$; $Tt = Ge, Sn$ and Pb). New Structure Type Among the Polar Intermetallic Phases"
Suen, N.-T.; **Bobev, S.** *Inorg. Chem.* **2013**, 52, 12731 – doi: 10.1021/ic4019844 – available on-line 10/11/2013.
140. "Copper and Zinc Substitutions in Clathrates of Tin. Synthesis, Structural Characterization, and Physical Properties of $A_8Cu_{2.67}Sn_{43.33}$ and $A_8Zn_4Sn_{42}$ ($A = K, Rb, Cs$) with the Type-I Structure"
Schäfer, M. C.; **Bobev, S.** *Chem. Mater.* **2013**, 25, 3737 – doi: 10.1021/cm402276n – available on-line 09/11/2013.
139. "The New Polar Intermetallic Phases RE_2Zn_5Tt ($RE = La-Nd$; $Tt = Sn$ and Pb): Synthesis, Structure, Chemical Bonding, and Magnetic Properties"
Suen, N.-T.; **Bobev, S.** *Inorg. Chem.* **2013**, 52, 9102 – doi: 10.1021/ic401339v – available on-line 07/17/2013.
138. "New Ternary Phosphides and Arsenides. Syntheses, Crystal structures, Physical Properties of Eu_2ZnP_2 , $Eu_2Zn_2P_3$ and $Eu_2Cd_2As_3$ "
Wang, J.; Xia, S.-Q.; Tao, X.-T.; Schäfer, M. C.; **Bobev, S.** *J. Solid State Chem.* **2013**, 205, 116 – doi: 10.1016/j.jssc.2013.06.029 – available on-line 07/11/2013.
137. "Synthesis, Structural Characterization and Properties of $SrAl_{4-x}Ge_x$, $BaAl_{4-x}Ge_x$, and $EuAl_{4-x}Ge_x$ ($x \approx 0.3-0.4$)—Rare Examples of Electron-rich Phases with the $BaAl_4$ Structure Type"
Zhang, J.; **Bobev, S.** *J. Solid State Chem.* **2013**, 205, 21 – doi: 10.1016/j.jssc.2013.06.023 – available on-line 07/09/2013.
136. "Structural Characterization of the Intermetallic Phase $EuZn_xIn_{4-x}$ ($x \approx 1.1-1.2$). Zn and In Site-preferences in the $BaAl_4$ Structure Type from Computational Analysis"
You, T.-S.; Nam, G.; Kim, Y.; Darone, G. M.; **Bobev, S.** *Bull. Kor. Chem. Soc.* **2013**, 34, 1656 – doi: 10.5012/bkcs.2013.34.6.1656.
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135. "Ternary $K_2Zn_5As_4$ -type Pnictides $Rb_2Cd_5As_4$, $Rb_2Zn_5Sb_4$, and the Solid Solution $Rb_2Cd_5(As,Sb)_4$ "
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134. "Correlations Between Chemical Bonding and Magnetic Exchange Interactions: Synthesis, Crystal Structures, and Magnetic Properties of the New Family RE_2AlGe_2 [$RE = Tb-Tm, Lu$]"
Zhang, J.; **Bobev, S.** *Inorg. Chem.* **2013**, 52, 5307 – doi: 10.1021/ic400254v – available on-line 04/23/2013.
133. "K and Ba Distribution in the Structures of the Clathrate Compounds $K_xBa_{16-x}(Ga,Sn)_{136}$ ($x = 0.8, 4.4$, and 12.9) and $K_xBa_{8-x}(Ga,Sn)_{46}$ ($x = 0.3$)"
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132. "Rare-earth Metal Gallium Silicides via the Gallium Self-flux Method. Synthesis, Crystal Structures, and Magnetic Properties of $RE(Ga_{1-x}Si_x)_2$ ($RE = Y, La-Nd, Sm, Gd-Yb, Lu$)"

- Darone, G. M.; Hmiel, B.;** Zhang, J.; Saha, S.; Kirshenbaum, K.; Greene, R.; Paglione, J.-P., **Bobev, S. J. Solid State Chem. 2013**, 201, 191 – doi: 10.1016/j.jssc.2013.02.029 – available on-line 03/06/2013.
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129. "Synthesis, Crystal Structures and Chemical Bonding of $RE_{5-x}Li_xGe_4$ ($RE = Nd, Sm$ and Gd ; $x \approx 1$) with the Orthorhombic Gd_5Si_4 Type"
Suen, N.-T.; You, T.-S.; **Bobev, S. Acta Cryst. 2013**, C69, 1 – doi: 10.1107/S0108270112050032.
128. "Synthesis, Structural Characterization and Physical Properties of the Early Rare-earth Metal Digermanides $REGe_{2-x}$ ($x = 1/4$) [$RE = La-Nd, Sm$]. A Case Study of Commensurately and Incommensurately Modulated Structures"
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127. "Synthesis, Structural Characterization, and Physical Properties of the Type-I Clathrates $A_8Zn_{18}As_{28}$ ($A = K, Rb, Cs$) and $Cs_8Cd_{18}As_{28}$ "
He, H.; Zevalkink, A.; Gibbs, Z.; Snyder, G. J.; **Bobev, S. Chem. Mater. 2012**, 24, 3596 – doi: 10.1021/cm3020226 – available on-line 09/07/2012.
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You, T.-S.; Jung, Y.-H.; **Bobev, S. Dalton Trans. 2012**, 41, 12446 – doi: 10.1039/c2dt31279d1 – available on-line 08/14/2012.
125. "New Rare-earth Metal Germanides with Bismuth Substitution. Synthesis, Structural Variations, and Magnetism of the $RE[Bi_xGe_{1-x}]_2$ ($RE = Y, Pr, Nd, Sm, Gd-Tm, Lu$) Compounds"
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124. "Several New Phases in the $RE-Mg-Ge$ Systems ($RE =$ Rare-earth Metals). Syntheses, Structures, and Chemical Bonding"
Suen, N.-T.; **Bobev, S. Eur. J. Inorg. Chem. 2012**, 4141 – doi: 10.1002/ejic201200619 – available on-line 08/07/2012.
123. "On the Nature of $Ge-Pb$ Bonding in the Solid State. Synthesis, Structural Characterization, and Electronic Structures of Two Unprecedented Germanide-Plumbides"

- Suen, N.-T.; Hooper, J.; Zurek, E.; **Bobev, S.** *J. Am. Chem. Soc.* **2012**, *134*, 12708 – doi: 10.1021/ja2012042838 – available on-line 07/17/2012.
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Guo, S.-P.; You, T.-S.; Jung, Y.-H.; **Bobev, S.** *Inorg. Chem.* **2012**, *51*, 6821– doi: 10.1021/10.1021/ic300566x – available on-line 06/04/2012.
121. "Synthesis and Structural Characterization of ACu_9Tt_4 ($A = Ca, Sr, Ba, Eu; Tt = Si, Ge, Sn$)—Tetragonally Distorted Ternary Variants of the Cubic $NaZn_{13}$ Structure Type. Improved Refinement of $SrCu_2Ge_2$ "
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