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- P12 Pilot Scale Production of Metal Borides with a Special Furnace Design to Prevent Boron Oxide Loss at High Temperatures**  
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- P13 SUPERCONDUCTIVITY IN FILAMENTARY CHANNELS IN LAB6 HEXABORIDE WITH DYNAMIC CHARGE STRIPES**  
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- P14 MAGNETIC PHASE DIAGRAMS OF ANTIFERROMAGNET DYB12 WITH JAHN TELLER LATTICE INSTABILITY AND ELECTRON PHASE SEPARATION**  
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- P15 SUBSTITUTION EFFECTS ON THE CRYSTAL STRUCTURE AND HARDNESS OF Mo<sub>2</sub>NiB<sub>2</sub> HARD MATERIALS**  
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Shota Ichijo<sup>1</sup>, Eri Takahashi<sup>1</sup>, Ryosuke Maki<sup>2</sup>, Ai Momozawa<sup>3</sup>
- P16 WHITE EMISSIVE SINGLE MOLECULE FROM MULTIPLE LUMINESCENCE THROUGH CASCADE ENERGY TRANSFER INDOLOCARBAZOLYL ORTHO CARBORANYL LUMINOPHORES**  
*Kang Mun Lee*<sup>1</sup> (Kangwon National University, Korea, South<sup>1</sup>)
- P17 SPARK PLASMA SINTERING OF TiB<sub>2</sub> PRODUCED BY SELF PROPAGATING HIGH TEMPERATURE SYNTHESIS**  
*Ahmet Turan*<sup>1</sup>, (*Yeditepe University, Türkiye*<sup>1</sup>)  
Filiz Cinar Sahin<sup>2</sup>, Gultekin Goller<sup>2</sup>, Onuralp Yücel<sup>2</sup>
- P18 DFT ANALYSIS OF THE HYDROGEN INDUCED STRUCTURAL TRANSFORMATION OF  $\beta$  BORON**  
*Naoki Uemura*<sup>1</sup>, (*Kyoto University Of Advanced Science, Japan*<sup>1</sup>)  
Tadashi Ogitsu<sup>2</sup>, Takanobu Hiroto<sup>3</sup>, Wataru Hayami<sup>3</sup>, Kohei Soga<sup>4</sup>, Kaoru Kimura<sup>5</sup>
- P19 THEORETICAL STUDY OF SPIN DEFECTS WITH AN HUBBARD MODEL COMBINED WITH DENSITY FUNCTIONAL THEORY CALCULATIONS**  
*Nathalie Vast*<sup>1</sup> (*CNRS, IMPMC, France*<sup>1</sup>)  
Alan Custodio Dos Reis Souza<sup>1</sup>, Mariya Romanova<sup>2</sup>, Yeonsoo Cho<sup>3</sup>, Jelena Sjakste<sup>4</sup>, Michele Casula<sup>5</sup>
- P20 ALBEB AND Al<sub>3</sub>BC – BORON WITH THE UNIQUE OXIDATION NUMBER –V**  
*Harald Hillebrecht*<sup>1</sup>, (*Freiburg University Germany*<sup>1</sup>)  
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