

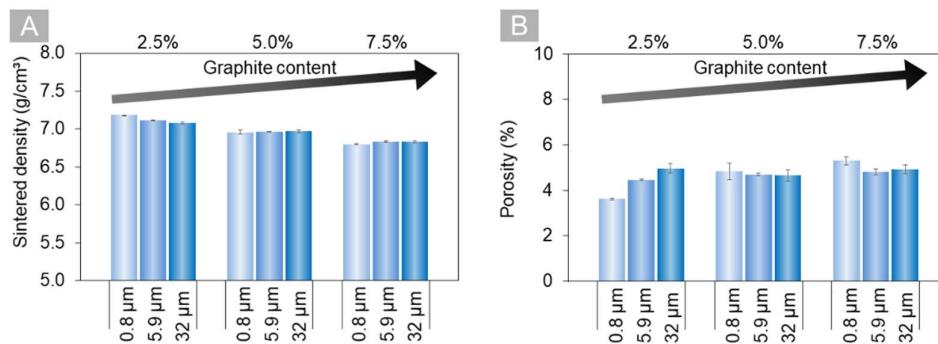


## Supplementary Materials

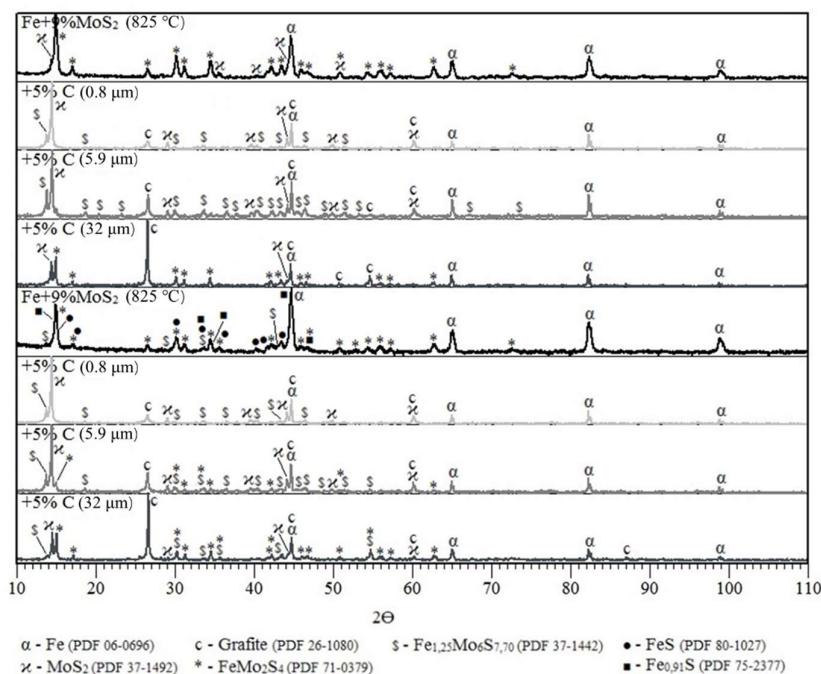
# Controlling the Solid-State Reaction in Fe-MoS<sub>2</sub> Self-Lubricating Composites for Optimized Tribological Properties

Gabriel Araujo De Lima <sup>1</sup>, Aloisio Nelmo Klein <sup>2</sup> and Kaline Pagnan Furlan <sup>3,\*</sup><sup>1</sup> Post-Graduation Program in Materials Science and Engineering (PGMAT), Federal University of Santa Catarina (UFSC), Florianópolis 88040-900, Brazil; gabriel.araujo207@gmail.com<sup>2</sup> Materials Laboratory (LabMat), Federal University of Santa Catarina (UFSC), Florianópolis 88040-370, Brazil; a.n.klein@ufsc.br<sup>3</sup> Integrated Material Systems Group, Institute of Advanced Ceramics, Hamburg University of Technology (TUHH), Denickestraße 15, 21073 Hamburg, Germany

\* Correspondence: kaline.furlan@tuhh.de



**Figure S1.** (A) Density and (B) porosity of the sintered iron samples containing MoS<sub>2</sub> and Graphite as solid lubricants.



**Figure S2.** Diffractograms of the reference samples Fe + 9% MoS<sub>2</sub> and of this composition with the addition of 5.0% of graphite with different particle sizes sintered at 825 °C and 850 °C.