

A NEW HIGH CONDUCTING PHASE IN THE
 $\text{Li}_2\text{SO}_4 - \text{Li}_2\text{WO}_4$ SYSTEM

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In the $\text{Li}_2\text{SO}_4 - \text{Li}_2\text{WO}_4$ binary system, Li_2WO_4 II has been identified as the stable phase at temperatures below 410°C . Region of solid solubility of Li_2SO_4 in Li_2WO_4 II extends up to 37 mole% of Li_2SO_4 . This phase with 30 mole% Li_2SO_4 shows the maximum Li^+ -ion conductivity in the binary system. The modified spinel structure, with W from octahedral sites replaced by S, appears to enhance the ionic conductivity of this phase.