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## **Chelation of Transition Metal Ion with Lithospermate B as Ligands**

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Lithospermate B (LB) is a phenolic compound found in *Salvia miltiorrhiza*, a well-known Chinese herb traditionally used for promoting blood circulation. Besides being an excellent anti-oxidant, LB can be used as a potential chelating agent for chelation therapy. With two carboxylate groups, LB is capable of chelating various metal ions in aqueous solution. [1] Therefore we tested LB as a chelating agent for various metallic ions, including sodium, potassium, calcium, iron, lead, cobalt, nickel and zinc. The generated metal complexes were examined by and LC-MS-MS. The results showed that some complexes are ionic interaction, such as Na-LB, but others are colvant bonding in nature, like Zn-LB. Most of the metal complexes can be dissolved but Fe-LB cannot. It is expected that LB has the potential as a good chelating agent.

### **References:**

1. Nan-hei LIN, Tse-yu CHUNG, Feng-yin LI, Hsin-an CHEN, Jason TC Tzen. Enhancing the potency of lithospermate B for inhibiting Na<sup>+</sup>/K<sup>+</sup>-ATPase activity by forming transition metal ion complexes.