

The reaction of Sb-based (inter)metallics as Na-ion negative electrode materials

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The recent exploration of alternative technologies to Li-ion batteries has triggered a vast (re)exploration of suitable anode and cathode materials for Na-ion batteries [1]. Our recent results on several Sb-based (inter)metallic chemistries [2-5] will be discussed.

The presentation will focus on the structural and electrochemical properties of thin film model systems for various (inter)metallic chemistries. Emphasis on surface and bulk chemistry reactions using a combination of techniques (XRD, XPS, XAS, Mössbauer spectroscopy, GITT/PITT) will be given. In some cases the reaction with Li and Na will be compared to highlight the effect of the cation on the electrode intrinsic properties and overall performance.

Acknowledgement

Research was supported by the Office of Basic Energy Sciences, Division of Materials Sciences and Engineering, U.S. Department of Energy.

References

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