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Publications

Kang, H-A; Engle, N. L.; Bonnesen, P. V.; Delmau, L. H.; Haverlock, T. J.; Moyer, B.A. An Equilibrium Model of Pseudo-Hydroxide Extraction in the Separation of Sodium Hydroxide from Aqueous Solutions Using Lipophilic Fluorinated Alcohols and Phenols. *Sep. Sci. Technol.*, 2005, **40** (1-2), 725-738.

Engle, N.L.; Bonnesen, P. V.; Tomkins, B. A.; Haverlock, T. J.; Moyer, B. A., "Synthesis and Properties of Calix[4]arene-bis[4-(2-ethylhexyl)benzo-crown-6], A Cesium Extractant With Improved Solubility," *Solvent Extr. Ion Exch.*, **22** (4), 611-636, 2004.

Gorbunova, M. G., Bonnesen, P. V., Engle, N. L., Bazelaire, E., Delmau, L. H., Moyer, B. A., "New amino-functionalized 1,3-altenate calix[4]arene bis- and mono-(benzo-crown-6 ethers) for pH-switched cesium nitrate extraction," *Tetrahedron Letters*, **44** (2003), 5397-5401.

Sachleben, R. A.; Bryan, J. C.; Brown, G. M.; Dabestani, R.; Engle, N. L.; Haverlock, T. J.; Hay, B. P.; Ji, H.-F; Urvoas, A.; Moyer, B. A.; "Rational Design of Cesium-Selective Ionophores and Chemosensors: Dihydroxycalix[4]arene Crown-6 Ethers," *European J. Org. Chem.*, 2003, 4862-4869.

Bonnesen, P. V.; Sloop, F. V., Jr.; Engle, N. L., "Stability of the Caustic-Side Solvent Extraction (CSSX) Process Solvent: Effect of High Nitrate on Solvent Nitration," ORNL Report ORNL/TM-2002/115, Oak Ridge National Laboratory, Oak Ridge, TN, July 2002.

Bryan, J.C.; Engle, N. L.; Sachleben, R. A., "Synthesis and Structure of Dihydrocalix[4]arenes Bearing O-benzonitrile and O-acetonyl Substituents," *J. Chem. Crystallogr.* **32**(1-2), 33-38 (2002).

Chambliss, C. K.; Haverlock, T. J.; Bonnesen, P. V.; Engle, N. L.; Moyer, B. A., "Selective Separation of Hydroxide from Alkaline Media by Liquid-Liquid Extraction with Weak Hydroxy Acids," *Environ. Sci. Technol.* **36**, 1861-1867 (2002).

Bryan, J. C.; Engle, N. L.; Sachleben, R. A.; Hay, B. P., "Tribenzo-18-crown-6 Acetonitrile Solvate," *Acta Crystallogr.* **C57**, 1359-1360 (2001).

Duchemin, C. R.; Engle, N. L.; Bonnesen, P. V.; Haverlock, T. J.; Delmau, L. H.; Moyer, B. A., "Solvatochromic Solvent Polarity Measurements of Alcohol Solvent Modifiers and Correlation with Cesium Extraction Strength," *Solvent Extr. Ion Exch.* **19**(6), 1037-1058 (2001).

Bonnesen, P. V.; Haverlock, T. J.; Engle, N. L.; Sachleben, R. A.; Moyer, B. A., "Development of Process Chemistry for the Removal of Cesium from Acidic Nuclear Waste by Calix[4]arene-Crown-6 Ethers," in *Calixarene Molecules for Separations*, G. J. Lumetta, R. D. Rogers, and A. S. Gopalan, Eds., ACS Symposium Series, Vol. 757, American Chemical Society, Washington, D. C., 2000; Chap. 3, pp. 26-44.

Delmau, L. H.; Bryan, J. C.; Hay, B. P.; Engle, N. L.; Sachleben, R. A.; Moyer, B. A., "Benzyl Phenol Derivatives: Extraction Properties of Calixarene Fragments," in *Calixarene Molecules for Separations*, G. J. Lumetta, R. D. Rogers, and A. S. Gopalan, Eds., ACS Symposium Series, Vol. 757, American Chemical Society, Washington, D. C., 2000; Chap. 7, pp. 86-106.