

Reading List
Zeolites

Reading Assignment: come prepared to lead a discussion on Kerr's paper. Review the crystal chemistry of zeolites and uses.

Kerr, George T., 1989. Synthetic Zeolites. *Scientific American*, 261:100-105.

Bish, D. and Guthrie, G., 1993. Mineralogy of Clay and Zeolite Dusts. in *Reviews in Mineralogy*, vol. 28, pg. 139-181. see zeolites.

Pool, Robert., 1994. The smallest chemical plants. *Science* 263:1698-1699.

Assigned reading:

Barrer, R.M., 1973. Porous crystals, in *Molecular Sieves*, Meier and Uytterhoeven, Eds., Advances in Chemistry Series, no. 121, American Chemical Society, p. 1-26.

Guthrie, G.,D., 1992. Biological effects of inhaled minerals. *American Mineralogist*, 77: see zeolites, 237-240, also intro 225-228. (Tiffany)

Hay, R.L., 1978. Geologic occurrence of zeolites. in Sands, and Mumpton, Eds., *Natural Zeolites*, p. 403-409. (Mike)

Lee, Hanju, 1973. Applied aspects of zeolite absorbents, in in *Molecular Sieves*, Meier and Uytterhoeven, Eds., Advances in Chemistry Series, no. 121, American Chemical Society, p. 311-316. (Tian-Li Fan)

Minachev, K.M., and Isakov, Y.I., 1973. Catalytic properties of zeolites: a general review, in *Molecular Sieves*, Meier and Uytterhoeven, Eds., Adv. in Chemistry Series, No. 121. Amer. Chem. Soc., p. 451-460. (Tony)

Ruthven, D.M., and Derrah, R.I., 1978. Sorption and diffusion in natural erionite. In Sands, and Mumpton, Eds., *Natural Zeolites*, p. 403-409. (Gian)

Books: General Crystal Structures and Chemistry

- American Chemical Society, 1971. *Molecular Sieve Zeolites-II*. American Chemical Society, Washington, D.C.
- Barrer, R.M., 1978. *Zeolites and Clay Minerals as Sorbents and Molecular Sieves*. Academic Press, London, 497 p.
- Breck, D.W., 1974. *Zeolite Molecular Sieves*, John Wiley & Sons, New York.
LSU call no. QE 391 Z5N37 1978.
- Gottardi, G. and Galli, E., 1985. *Natural Zeolites*. Springer-Verlag, New York, 409 p.
- Mumpton, F.A., Ed., 1977. *Mineralogy and Geology of Natural Zeolites*. Reviews in Mineralogy, Mineralogical Society of American, Washington, D.C., 225 p.
- Sand, L.B. and Mumpton, F.A., Eds., 1978. *Natural Zeolites, Occurrence, Properties, Use*. Pergamon Press, Oxford. 546 p.
- Tsitsishvili, G.V., Andronikashvili, T.G., Kirov, G.N., and Filizova, L.d., 1992. *Natural Zeolites*, Ellis Horwood, BY, 295 pg.

Additional material: Mineralogy, Crystal Structures and Chemistry, Occurrence

- Gottardi, G., 1978. Mineralogy and crystal chemistry of zeolites. In Sands, and Mumpton, Eds., *Natural Zeolites*, p. 31-44.
- Vaughan, D.E.W., 1978. Properties of natural zeolites. In Sands, and Mumpton, Eds., *Natural Zeolites*, p. 353-371.