not admit of extended use; (3) their cost, which, even in the event of the first and second considerations being favorable, would bar their practical use extensively."

Glass Coloring. Schott and Glinzer, in Jena, succeeded in introducing oxides of cerium, "didymium," and erbium into molten glass, in quantities of over 10 per cent. Zsigmondy examined, with reference to thermal conductivity, a glass in which the calcium oxide was partly replaced by cerium and "didymium" oxides. Its thermal conductivity equaled that of lime glass. Witt obtained yellow-colored glass, resistant to heat, by additions of 1 to 3 per cent. of cerium oxide. "Didymium," neodymium, and erbium oxides color molten glass red to violet; praseodymium, from yellow to yellowish green. The glasses gain no practical value through this coloring, but they offer a certain scientific interest, inasmuch as they afford a convenient means for observing the absorption spectra of the respective earths which enter into their composition.

On the coloring properties of the oxides of neodymium and erbium is based a process, by Drossbach, for decolorizing glass. If we add to the molten glass a salt of neodymium or erbium, the rose-red coloration produced by these ingredients removes from the glass its usual bluish-green tint.

Fireproofing. Nernst has recently indicated a possibility of applying a number of the rare earths for the production of fireproof utensils and vessels. It is quite apparent that this is a useless suggestion on account of cost.

Catalytics. Imray secured an English patent for the use of oxygen compounds of the rare earths as a contact material, with or without the addition of platinum, for the production of sulphur trioxide. Baskerville and Davis independently discovered this also. The best process so far made known appears to be that of Hölbling and Ditz, who make use of the residue resulting from the manufacture of thorium salts, as a contact substance for the production of sulphuric acid and its anhydrides. A certain definite proportion of didymium sulphates is required, according to later reports, for securing a maximum yield. For some reason, however, they have been unable to secure U.S. patents.

Ditz and Margosches pass hydrochloric acid gas over a heated contact-mass consisting of a number of chlorides of the rare earths. Under favorable conditions (at a temperature of from