

## **Unforeseen factors influencing Fe(III)-containing cations sorption on strongly basic anion exchangers**

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### **Abstract**

The sorption and partial destruction of the Fe(III)-containing compounds in the aqueous medium in strongly basic anion exchangers AV-17 and Varion-AD phase have been investigated. It is shown that partial destruction of the Fe (III) compounds in acidulated water (pH = 2) and in K<sub>2</sub>SO<sub>4</sub>, Fe<sub>2</sub>(SO<sub>4</sub>)<sub>3</sub> solutions takes place. With increasing of temperature up to 50°C, the desorption degree of the iron ions from polymer phase decreases. In dried polymer, the structural and electronic state of iron compounds, according to their magnetic susceptibility, remains stable for a long time. The sorption of the Fe(III)-containing cations at 50°C during 12 h depends essentially on the sizes of polymer granules. Sorption increases with growing of polymer granules. For comparison of sorptional capacities, the sorption of Fe(III)-containing cations was determined on different cation and anion exchangers.

*Keywords: anions, Fe-containing compounds, iron compounds*

### **Citing Literature**

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