


ANNOUNCING

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ION EXCHANGE LETTERS

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Welcome on the pages of our new-born journal. We hope this journal can provide platform for rapid publication of novel research work in the fields of ion exchange, sorption and metal-ligand interactions. This journal is purely **open access**. As there is no financial support at the time, the survival and the future development of it depends purely on your willingness to help us. This journal is specially focused on students and young researchers but accepts contributions from all scientists. From our point of view, prerequisite for the quality of an internet journal is the **peer-review** process that should be of the same quality as in the case of classical printed journals. The editors will put all their effort into it. Spreading the information about the journal and its content to help others find the relevant articles in ion

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ARTICLE

Comparison of sorption of electrochemically generated V(IV) and V(V) onto selective sorbent


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Abstract:
Reduction of V(V) to V(IV) was performed at carbon felt cathode at a constant potential of - 1500 mV vs. Ag/AgCl. Adsorption of vanadium species onto the sorbent Purolite D 4123 was investigated in the pH range 2.5 to 5. V(V) was efficiently adsorbed throughout pH range studied, whereas V(IV) was barely adsorbed at pHs of 2.5 to 3.5 and it was re-oxidized to V(V) at higher pHs. In column experiments, V(V) was strongly adsorbed. V(IV) broke through the column readily and reached the inlet concentration within 60 BV. Desorption was carried out with combination of 1 M HCl and 1M NaOH, consequently, and the total vanadium recovery was about 100 %.

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- Selective metal separation via ion exchange
- Synthesis and characterization of ion exchangers and sorbents
- Removal of metal oxoanions from contaminated water via ion exchange and sorption
- Modification and utilization of biosorbents
- Composite sorbents - inorganic/polymer, SIR
- Combination of ion exchange with other methods - hybrid processes
- Selective ligands for metal sorption
- Minimization of waste in ion exchange and sorption processes

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