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## Novel U(VI) Schiff base complexes: synthesis, structural characterization, and extraction studies

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The coordination chemistry of uranium in different oxidation states has recently generated much attention due to several reasons. The most important reason is the separation of U(VI) present in radioactive waste, but also the effects of U(VI) on our environment are of great interest.[1] The extraction and separation of U(VI) and other actinides, especially the separation from lanthanides, is most difficult due to their similar chemical behavior.[2] However, the introduction of soft heteroatoms, as imine nitrogen, in the ligand systems could be used as a tool for more selective and effective binding and extraction. We have synthesized and characterized some novel U(VI) complexes using multidentate Schiff base ligands. Structures of these complexes were characterized by X-ray crystallography and DFT calculations. It is the intention of this work to determine not only the structure of these complexes but also the extraction ability of the ligands towards U(VI) and Eu(III).

### References

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[2] Nash K. L. (1993) Solvent Extr. Ion Exch. 11, 729-768.

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