ADVANCED MATERIALS FOR NEW SMRs

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Opening for graduate student now:

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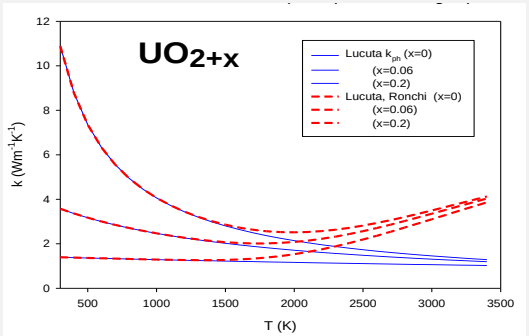
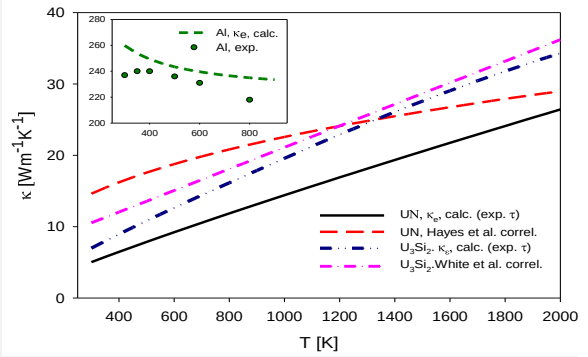
Research highlight related to interest in SMRs (/nuclear-power-plants-overview/bwrx-300)

Traditional urania fuel with low phonons assisted thermal conductivity, which deteriorates with temperature led to many nuclear accidents! See e.g. FUKUSHIMA nuclear accident in Japan.



Therefore we investigate Enhanced Accident Tolerant Nuclear Fuels with enhanced thermal conductivity by electrons and high uranium density (no enrichment needed).



The exemplary tools we use in modelling:

- **State of the art *ab initio*, predictive codes**
- **Our own interphase (nipy) developed in python, which needs to be updated frequently**
- **Maple code is used to predict temperature profiles - may move to free R-language**

Research and graduate students are welcome and please see more details on: http://www.barbara-research.ca/

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