

To all applicants,

Thank you for taking the time to apply for funding through SKC:s call for research proposals. The 2020 call, announced in april, attracted 20 applications. The applications covered such fields as nuclear chemistry, aging of metals and polymers, reactor physics, severe accident analysis, multi-physics modelling and fuel development.

Swedish nuclear industry and Radiation Safety Authority experts in their respective fields have evaluated all project proposals against the criteria announced to applicants beforehand. The complete list of submitted project proposals, along with the overall score of each project, is provided in the table below.

SKC has decided to fund the following 4 research projects, of which 2 are PhD positions and 2 are post-doc positions:

- Development of a fully coupled electrochemical and micro mechanical SCC model
Post-doc position in collaboration between KTH, Chalmers, EDF and Studsvik
- Impact of radiation chemistry on surface processes in LWRs
PhD position in collaboration between KTH and Chalmers
- Application of artificial neural networks in reactor physics calculations
PhD position in collaboration between KTH, Chalmers and Westinghouse
- Influence of alloying and neutron flux on irradiation effects in fuel rods
Post-doc position at Chalmers

SKC will fund a PhD position with 1 MSEK per year over the course of 4 years, A Post-doc position will be funded with 1 MSEK per year over the course of 2 years.

SKC encouraged all applicants that did not receive funding from the 2019 call to revise their applications, particularly with respect to the criteria that SKC uses to evaluate the proposals. It is therefore gratifying to point out that several projects that received the highest ranking are projects that have been reworked, often in collaboration with industrial or academic partners. Collaboration and exchange of ideas, despite the Covid-19 pandemic, has led to SKC being able to fund projects that balance well the applicability of research results with their scientific ambition levels.

Consequently, SKC has exhausted the budget for research projects for the period 2020-2023. Base funding of 4 MSEK per year for the years 2021-2023 remains to be allocated. Call for base funding applications for 2021 will be announced by the end of 2020. SKC will in total fund 9 research projects in the period of 2020-2023, of which 7 are PhD positions and 2 are post-doc positions.

I wish the universities all the best with the recruiting that remains to (wo)man the projects and look forward to seeing the results.

Kind regards,

Merja Pukari
Director, SKC

Project Title	Leading University	Score	SKC Funding
Development of a Fully Coupled electrochemical and micro mechanical SCC model	KTH	3.70	YES
Impact of radiation chemistry on surface processes in LWRs	KTH/Chalmers	3.70	YES
Polymera material i kärnkraftverk	KTH	3.60	NO
Application of Artificial Neural Networks in Reactor Physics Calculations	KTH/Chalmers	3.50	YES
Influence of Alloying and Neutron Flux on Irradiation Effects in Fuel Rods	Chalmers	3.45	YES
Inverkan av sammansättning på försprödning av svetsar av RPV-typ	Chalmers	3.35	NO
Fast track assessment of fuel property degradation in operational and accident conditions	KTH	3.30	NO
Normative Approach to assessment of Mechanical properties for application on ductile Materials including Nuclear Additive Manufacturing Methods – Namm-Namm	KTH	3.25	NO
Convection and HEat transfer in Stratified molten pools (CHEERS)	KTH	3.15	NO
En analysmetod för svärmätbara radionuklider	Chalmers	3.10	NO
Isomeric fission yield studies for improved nuclear fission modelling	UU	3.05	NO
PhD student funding in the area of Fuel Tecnology	UU	3.00	NO
CFD model development towards more accurate predictions and estimations of thermal safety margins in support of optimized design and operation of LWR fuel assemblies	KTH	3.00	NO
Melt Infiltration, Solidification and remelting in a PArticulate DEbris (MINSPADE)	KTH	3.00	NO
Independent fission yields for safe, efficient and sustainable nuclear power	UU	2.95	NO
Improved nuclear data in fission cross-sections for sustainable nuclear energy	UU	2.80	NO
Development and experimental evaluation of optical temperature sensors for nuclear power plants	KTH	2.45	NO
Development and validation of analytic methods and tools for qualification of specific and inherent safety features of SMRs	KTH	2.25	NO
LWR as frequency restoration reserve Development, validation and verification of novel ideas to enhance revenue in a rapidly changing electricity market	KTH	2.15	NO
Ansökan post-doc	KTH	0.45	NO