

Skema til faglig slutrapportering

Forsknings- og Innovationsstyrelsen
Bredgade 40
1260 København K



Dato:

Formålet med denne faglige slutrapportering er: 1) at vurdere bevillingen i forhold til ansøgningen, herunder vurdere ressourcernes anvendelse i forhold til bevillingens resultater, 2) at give mulighed for at afslutte bevillingen med godkendelse.

Angiv det relevante faglige råd eller den relevante programkomite

1. Grundoplysninger

Bevillingens titel:

Sagsnr. (fx 09-012345)

Bevillingshavers navn og stilling

Arbejdsplads (adresse, telefon og email)

Bevillingens hjemmeside hvis relevant

Virkemiddel

2. Bevillingsperiode

Oprindelig bevillingsperiode

Fra:

Til:

Faktisk, godkendt bevillingsperiode

Fra:

Til:

Årsager til eventuelle væsentlige ændringer i bevillingsperioden

3. Partnere/ledelse

Deltagende partnere, f.eks. universiteter, virksomheder og offentlige institutioner, herunder internationale partnere. Angiv oprindelige partnere og forklar evt. senere væsentlige ændringer i deltagerkredsens sammensætning:

Se venligst bilag 1 for en fuldstændig liste over personer der har deltaget i aktiviteter med relation til DANSCATT

Danscatts bestyrelse har følgende medlemmer:
Formand Robert Feidenhans'l, Københavns Universitet
Næstformand Kim Lefmann, Københavns Universitet
Niels Bech Christensen, Risø DTU
Michael Gajhede, Københavns Universitet
Pernille Harris, DTU
Bo Brummerstedt Iversen, Aarhus Universitet
Alfons Molenbroek, Haldor Topsøe A/S
Kell Mortensen, Københavns Universitet
Henning Friis Poulsen, Risø DTU
Søren Thirup, Aarhus Universitet
Observatør: Sine Larsen, Københavns Universitet / Max Lab

Anfør væsentlige ændringer i bevillingens ledelse, herunder personer, struktur og proces.

4. Økonomi

Oprindeligt bevilget beløb	Ekskl. overhead:	9.583.333,00 kr.	Inkl. overhead:	13.800.000,00 kr.
Eventuel tillægsbevilling	Ekskl. overhead:		Inkl. overhead:	
Væsentlige afvigelser mellem budget og regnskab og i givet fald årsagerne hertil				
Eventuel medfinansiering - fra arbejdssted eller anden side				

5. Kvalitativ afrapportering ved bevilling fra DFF

Skriv i feltet herunder en kort beskrivelse projektforløbet. Beskrivelsen skal være på ca. 2.000 anslag og indeholde:

- projektets formål (inkl. hypotese, teori, metoder og data)
- en redegørelse for eventuelle videnskabelige afvigelser fra den oprindelige projektplan samt en forklaring på disse
- en beskrivelse af de væsentligste resultater og hvordan de bidrog til realiseringen af projektets formål/ testede projektets hypoteser
- en redegørelse for eventuelle nye, videnskabelige spørgsmål projektets resultater medfører eller om du har identificeret nye forskningsbehov i løbet af projektet.

DANSCATT comprises all Danish user groups that are using large scale synchrotron x-ray and neutron scattering. The scientific area within DANSCATT span from structural biology over biophysics and biochemistry to chemistry, solid state physics and material science. About 350 scientists are active within DANSCATT including 50 post docs, 135 PhD students and 70 MSc students. The main activity of DANSCATT is to facilitate access to the international large scale facilities by supporting travel where necessary. A substantial part of the funding is hence directly targeted to support travel cost. DANSCATT is also supporting post doc and technical staff at facilities like the PSI in Switzerland, SNS in Tennessee and MAX-lab in Lund in order to assure preferred access for Danish user groups to these facilities. In total 150-180 publications are yearly published with support from DANSCATT including about 20 publications in high impact journals.

A special effort of DANSCATT is to assure optimal use of the Danish member ship of the European Synchrotron radiation facility in Grenoble, the X-ray free electron laser XFEL in Hamburg and building of the competence towards exploiting the ESS to be built in Lund. The latter was facilitated through the Danish trial membership of the ILL (Institute Laue Langevin) in Grenoble.

DANSCATT organizes and structures the Danish user community and is enabling interdisciplinary project by its networks activities like the annual DANSCATT meetings. These are typically attended by around 130 participants and were in 2010 held at DTU and in 2011 at University of Aarhus. Furthermore, the board of DANSCATT is serving as a group forming long term strategies for fulfilling the needs of the Danish user community in the coming years.

5. Kvalitativ afrapportering ved bevilling fra DSF

Rapporteres i et separat bilag med mulighed for indsættelse af figurer, mm. (max 5 sider).

Den kvalitative afrapportering bør som minimum beskrive og vurdere den gennemførte aktivitet inden for følgende områder:

- Forskningsmæssige resultater
- Erhvervs- og samfundsmæssige resultater
- Forskeruddannelse
- Samarbejde, herunder tværinstitutionelt, tværdisciplinært og internationalt samarbejde

Kvantitativ afrapportering (Du anbefales for hver rubrik at afrapportere i punktstilling)

6. Stipendier

Ph.d.-stipendier/grader og postdocstipendier (navne, cpr-nr, arbejdsplads, antal måneder finansieret af bevillingen, nationalitet, køn (M/K))

Henrik Fanø Clausen (M, Danmark), Aarhus Uni. / SNS Oak Ridge 1.1. 2010 - 30.11. 2011
Hao Yin (M, Kina), Aarhus Uni. / SNS Oak Ridge. 3 måneders løn, men ikke en sammenhængende periode
Henning Osholm Sørensen (M, Danmark), Risø DTU / ESRF 1.1. - 31.1. 2010
Jette Oddershede (K, Danmark), Risø DTU / ESRF 1.2.-31.12. 2010
Wimal Ubhayasekera (M, Sri Lanka), MAX Lab 15.01. 2010 - 15.05. 2011
Sandor Balog (M, Ungarn), Paul Scherrer Institutet 1.1.-31.12. 2010
Mark Laver (M, England), Paul Scherrer Institutet 1.1.-31.12. 2011

7. Publikationer affødt af det finansierede projekt

Vejledning:

Oversigten er udarbejdet i overensstemmelse med universiteternes registreringssystem for publikationer og følger samme definitioner af publikationstyper. Kun de publikationstyper, som er væsentligst for Det Frie Forskningsråd/Det Strategiske Forskningsråd, er omfattet. For hver publikationstype skal angives forfatter, titel, sideantal, evt. tidsskrift, og årstal. Desuden skal der for hver publikation angives evt. publicering i Open Acces (OA), samt hvor stor andel af publikationen, der skønsmæssigt er finansieret af bevillingen i procent (X %).

Videnskabelig formidling

Artikler, peer reviewed

Se venligst bilag 2 DANSCATT har støttet med gennemsnitligt 20.000 kr. per publikation

Artikler, ikke peer reviewed

Doktordisputatser

Bo Brummerstedt Iversen: Phonon Glass Electron Crystal Materials for Thermoelectric energy conversion. 2010

Ph.d.-afhandlinger

2011

Jacob Lauwring Andersen: Functional and structural studies of a *Listeria monocytogenes* Ca²⁺-ATPase & Structural studies of the Vps10p receptor family (MolBio AU, Vejleder: Poul Nissen)

Lene M. Arnbjerg: Synthesis and study of complex metal hydrides (Kemi AU, Vejleder: Torben R. Jensen)

Nicolai F. Brejnholt: NuSTAR Calibration Facility and multilayer reference database (DTU Space, Vejleder: Finn E. Christensen)

Jakob Munkholt Christensen: Catalytic synthesis of long-chained alcohols from syngas (DTU Chemical Engineering, Vejledere: Anker Degn Jensen og Peter Arendt Jensen)

Kim Langemach Hein: Structural and functional studies of calcium ATPases and associated factors (MolBio AU)

Malene Hillerup Jensen: Structural and Biophysical Characterisation of Self-Association Mechanisms of Two Long-Acting Insulin Analogues (FARMA, KU, Vejledere: Bente Vestergaard, Sven Havelund, Marco van de Weert, Per-Olof Wahlund, Jes K. Jakobsen)

Jesper S. Johansen: Structural Studies of EF-Tu complexes (MolBio AU, Vejleder: Søren Thirup)

Jan Kehres: Dynamical properties of nano-structured catalysts for methane conversion: an in situ scattering study (DTU, Vejledere: Tejs Vegge, Jens Wenzel Andreassen m.fl.)

Kristine Groth Kirkensgaard: Thioredoxin reductase from barley: Structure, recognition of thioredoxin, protein engineering and catalytic mechanism. (Carlsberg/DTU, Vejledere: Anette Henriksen, Birte Svensson og Per Håggglund)

Nick Stub Laursen: Structural studies of complement C5 activation and inhibition (MolBio AU, Vejleder: Gregers Rom Andersen)

Allan Lyckegaard: Development of tomographic reconstruction methods in materials science with focus on advanced scanning methods (Risø DTU, Vejleder: Erik Mejdal Lauridsen)

Monika Nøhr Løvgreen: Structure and Characterization of Enzymes in the Nucleotide Metabolism and Iron-Sulfur Proteins (DTU Kemi)

Raghu Sankar Marsala: Impact of Long Chain Asymmetric Human Skin Ceramides on POPC Model Membranes (SDU, Vejleder: Beate Kløsgen)

Søren F. Midtgaard: Structural studies of the carbohydrate binding domains LysM and G5 from Gram positive bacteria (MolBio AU, Vejleder: Søren Thirup)

Charlotte Rode Mosbæk: Small angle X-ray scattering studies of blood coagulation factor VII and antibodies at high concentration (FARMA, KU, Vejledere: Bente Vestergaard, Jens Thøstrup Bukrinski, Michael Gajhede, Christain

Rischel)	
Leigh Murphy: Thermochemical screening of lignocellulosic enzymes for second generation bioethanol production (RUC. Vejleder: Peter Westh)	
Harm Otten: Structural Studies of Industrial Dehydrogenases and Two Additional Carbohydrate Active Enzymes (Kemi KU. Vejleder: Leila Lo Leggio)	
Stefan Poulsen: 3D studies of coarsening kinetics of individual grains. (Risø DTU. Vejleder: Erik Mejdal Lauridsen) Afl. dec. 2011, forsvær 28. febr. 2012.	
Dorthe B. Ravnsbæk: Synthesis, structure and properties of novel borohydrides (Kemi AU. Vejleder Torben R. Jensen)	
Nina Reichhardt: Towards a responsive functional material: Modification of porosity (SDU. Vejleder: Beate Klösgen)	
Iben Skovsen: Crystal structures and physical properties investigations of thermoelectric materials (Kemi AU. Vejleder Bo Brummerstedt Iversen)	
Yonathan Sonntag: Interaction of the Sarco(endo)plasmic Reticulum Ca ²⁺ -ATPase with the Membrane and Membrane Bound Inhibitors (MolBio AU. Vejleder: Poul Nissen)	
Helle Svendsen: Understanding physical properties from advanced crystallographic experiments (Kemi AU. Vejleder Bo Brummerstedt Iversen)	
Rasmus Toft-Petersen: Magnetic structures of the lithium orthophosphates and the study of the Bragg glass phase of vortex matter. (Risø DTU. Vejleder: Niels Hessel Andersen) Afl. 19. okt. 2011, forsvær 24. febr. 2012	
Christian Wejdemann: Evolution of dislocation structures following a change in loading conditions studied by in situ high resolution reciprocal space mapping (Risø DTU. Vejleder: Wolfgang Pantleon)	
Ditte Welner: Structural studies of a NAC transcription factor (Kemi KU. Vejleder: Leila Lo Leggio)	
Hao Yin: Development of Zn ₄ Sb ₃ based thermoelectric materials (Kemi AU. Vejleder Bo Brummerstedt Iversen)	
2010	
Caspar Elo Christensen: Molecular interactions in Arabidopsis beta-oxidation. (KU Faculty of Science, vejledere: Birthe Brandt Kragelund, Penny von Wettstein-Knowles, Anette Henriksen)	
Jacob Becker Christensen: Synthesis and Characterisation of Nanostructured Catalyst Materials for Biofuel Production. (Kemi AU. Vejleder Bo Brummerstedt Iversen)	
Henrik Fanø Clausen: Investigating Molecular Interactions – Utilization of Experimental Electron Density Distributions and Hirschfeld Surfaces. (Kemi AU. Vejleder Bo Brummerstedt Iversen)	
Ane Feddersen: Structural and Biochemical Studies of mRNA Turnover in Eukaryotes and Mitochondria. (MolBio AU. Vejleder: Brodersen)	
Maria Hansen: Structural Characterization of the Sortilin/CNTF Complex. (MolBio AU. Vejleder: Thirup)	
Torben Haugaard Jensen: Refraction and scattering based x-ray imaging. (NBI KU. Vejleder: Robert Feidenhans'l)	
Dmitry Khakhulin: Acoustic Vibrations on the Nanoscale: Time-resolved Optical and X-ray Studies. (NBI KU. Vejleder: Robert Feidenhans'l)	
Jacob J. K. Kirkensgaard: Novel Morphologies in star-shaped polyphilic molecules and miktoarm copolymers (KU-LIFE. Supervisor: Kell Mortensen)	
Simon O. Mariager: Structure and dynamics of crystalline nano-systems (NBI KU. Vejleder: Robert Feidenhans'l)	
Julia Preu: Structural changes in charged membrane model systems. (NBI KU. Vejleder: Thomas Heimburg)	
Inge L. Rasmussen: Optical Monitoring and X-ray Absorption Spectroscopy for Studies of Wear on Thin Films. (NBI KU. Vejleder: Robert Feidenhans'l)	
Iben Skovsen: Crystal Structures and Physical Properties - Investigations of Potential Thermoelectric Materials. (Kemi AU. Vejleder Bo Brummerstedt Iversen)	
Helle Svendsen: Understanding Physical Properties from Advanced Crystallographic Experiments - Determination of Excited State Structures and Charge Densities. (Kemi AU. Vejleder Bo Brummerstedt Iversen)	
Malene Bech Vester-Christensen: Recombinant Barley Limit Dextrinase and Characterisation of its Interaction with the Endogenous Limit Dextrinase. (Technical University of Denmark, Vejledere: Birte Svensson and Anette Henriksen)	



Videnskabelig bøger/antologier

Mortensen, Kell; Small-Angle Neutron Scattering (SANS) at Reactor Sources. In: Neutrons in Soft Matter (Ed. Toyoko Imae, Wiley Publisher). 2010. <http://www.wiley-vch.de/publish/en/books/forthcomingTitles/PH00/0-470-40252-0/?sID=b4bca2db672920b1d9bfe01c4ac89f4>

Videnskabelige rapporter

Bidrag til bøger/antologier/rapporter

Glatzel, P., C.T. Chantler, A.M. Molenbroek, M. Newville, J. Rehr, Tsun-Kong Sham, R. Strange; XAFS-related entries in the online dictionary of crystallography
http://www.iucr.org/_data/assets/pdf_file/0003/58845/IUCr-Dictionary-CXAFS-Contribution.pdf (2011)

Working papers/arbejdspapirer/preprints

Konferenceartikler, peer reviewed

2011

Baltser, J., E.B. Knudsen, A. Vickery, O. Chubar, A. Snigirev, G. Vaughan, R. Feidenhans'l, K. Lefmann; Advanced simulations of x-ray beam propagation through CRL transfofocators using ray-tracing and wavefront propagation methods. In: Proceedings of SPIE, the International Society for Optical Engineering, volume 8141, 2011. (Presented at: Advances in Computational Methods for X-Ray Optics II : San Diego (US), 21 - 25 Aug, 2011)

Christensen, N.B., J. Chang, E. Razzoli, M. Bator, Ch. Niedermayer, K. Lefmann, H.M. Rønnow, D.F. McMorrow, A. Schneidewind, P. Link, A. Hiess, M. Boehm, R. Mottl, S. Pailhès, M. Oda, M. Ido, N. Momono, J. Mesot; Magnetic Field-Induced Closure of the Spin Excitation Gap near Optimal Doping in La₂-xSrxCuO₄. Journal of the Physical Society of Japan. 80 (2011) SB030

Frankær, C.G., K. Ståhl, P. Harris; Conformational studies of bovine insulin.22. IUCr Meeting 2011, Madrid, Spain (2011). Acta Crystallographica A67, C516-C517

Harris, P., M.N. Løvgreen, Martin Willemoës; TTP binding in the active conformation of dCTP deaminase:dUTPase. 22nd IUCr Meeting 2011, Madrid, Spain (2011). Acta Crystallographica A67, C792

Knudsen, E.B., A. Prodi, P.K. Willendrup, K. Lefmann, J. Baltser, C. Gundlach, M.S. Del Rio, C. Ferrero, R. Feidenhans'l; McXtrace: A modern ray-tracing package for X-ray instrumentation
In Proceedings of SPIE, the International Society for Optical Engineering, volume 8141, 2011. (Presented at: Advances in Computational Methods for X-Ray Optics II : San Diego (US), 21 - 25 Aug, 2011)

Martyniuk, K., B.F. Sørensen, E.M. Lauridsen, S. Goutianos, M. McGugan, W. Ludwig, S. Fæster; Microscale damage in model composites. Proceedings of the 32nd Risø International Symposium on Materials Science: Composite materials for structural performance: Towards higher limits, p. 377-384. Risø National Laboratory for sustainable Energy, Technical University of Denmark, 2011

Prodi, A., E.B. Knudsen, P.K. Willendrup, S. Schmidt, C. Ferrero, R. Feidenhans'l, K. Lefmann; A Monte Carlo approach for simulating the propagation of partially coherent X-ray beams. In: Proceedings of SPIE, the International Society for Optical Engineering, volume 8141, 2011. (Presented at: Advances in Computational Methods for X-Ray Optics II : San Diego (US), 21 - 25 Aug, 2011)

Ståhl, K., J. Oddershede, T.L. Christiansen, M.A.J. Somers; Expanded austenites studied by PXRD and EXAFS. 22. IUCr Meeting 2011, Madrid, Spain (2011). Acta Crystallographica A67, C679-C680

Wu, Q., J.M. Christensen, G.L. Chiarello, B. Temel, J.-D. Grunwaldt, A.D. Jensen; Supported molybdenum carbides for higher alcohols synthesis from syngas. The 242nd ACS National Meeting, Chemistry of Air, Space & Water, 2011, Denver, USA. Published in journal: American Chemical Society. Division of Fuel Chemistry. Preprints of Symposia (ISSN: 1521-4648) , vol: 55, issue: 1, 2011, American Chemical Society

2010

Frahm, R., M. Nachtegaal, J. Stötzl, M. Harfouche, J.A. van Bokhoven, J.-D. Grunwaldt; The dedicated QEXAFS facility at the SLS: Performance and Scientific Opportunities. AIP Conference Proceedings (2010), 1234, 251.

Kuvvetli, I., C. Budtz-Jørgensen, E. Caroli, N. Auricchio, E. Kalemci, J. B. Stephen; Charge Collection and Depth Sensing Investigation on CZT Drift Strip Detectors. Conference report, R7-2, Nuclear Science Symposium and Medical Imaging Conference

Lyckegaard, A., A. Alpers, W. Ludwig, R.W. Fonda, E.M. Lauridsen; 3D grain reconstruction from boxscan data. Proceedings of the International Risø Symposium on Materials Science (2010), 329-336

Oddershede, J., J.P. Wright, L. Margulies, X. Huang, H.F. Poulsen, G. Winther; 3DXRD measurements of lattice rotations in tensile deformed IF steel. Proceedings of the International Risø Symposium on Materials Science (2010), 369-374

Pantleon, W., C. Wejdemann, B. Jacobsen, U. Lienert, H.F. Poulsen; Advances in characterization of deformation structures by high resolution reciprocal space mapping. Proceedings of the International Risø Symposium on Materials Science (2010), 79-100

Poulsen, H.F., W. Ludwig, E.M. Lauridsen, S. Schmidt, W. Pantleon, U.L. Olsen, J. Oddershede, P. Reischig, A. Lyckegaard, J.P. Wright, G. Vaughan; 4D characterization of metals by 3DXRD. Proceedings of the International Risø Symposium on Materials Science (2010), 101-119

Poulsen, S.O., A. Lyckegaard, J. Oddershede, E.M. Lauridsen, C. Gundlach, C. Curfs, D. Juul Jensen; Recrystallization kinetics of 50% cold-rolled aluminium. Proceedings of the International Risø Symposium on Materials Science (2010), +

391-396

Riesch, J., Ch. Linsmeier, S.F. Nielsen; In-situ tomographic observation of crack formation and propagation in tungsten materials in the framework of FEMaS-CA. Proceedings of the International Risø Symposium on Materials Science (2010), 405-412

Syha, M., M. Bäurer, M.J. Hoffmann, E.M. Lauridsen, W. Ludwig, D. Weygand, P. Gumbsch; Comparing grain growth experiments and simulations in 3D. Proceedings of the International Risø Symposium on Materials Science (2010), 437-442

Van Boxel, S., S. Schmidt, W. Ludwig, Y.B. Zhang, H.O. Sørensen, W. Pantleon, D. Juul Jensen; Monitoring grain boundary movement during recrystallisation using topotomography. Proceedings of the International Risø Symposium on Materials Science (2010), 449-456

Vaughan, G.B.M., J.P. Wright, A. Bytchkov, C. Curfs, C. Gundlach, M. Orlova, L. Erra, H. Gleyzolle, T. Buslaps, A. Götz, G. Suchet, S. Petidemange, M. Rossat, L. Margulies, W. Ludwig, A. Snigirev, I. Snigireva, S. Schmidt, H.O. Sørensen, E.M. Lauridsen, U. L. Olsen, J. Oddershede, H.F. Poulsen; The extension of ID11 for nanoscale and hierarchical characterization. Proceedings of the International Risø Symposium on Materials Science (2010), 457-476

Wejdemann, C., U. Lienert, H.B. Nielsen, W. Pantleon; Identifying individual subgrains in evolving deformation structures by high angular resolution X-ray diffraction. Proceedings of the International Risø Symposium on Materials Science (2010), 477-487

Wejdemann, C., U. Lienert, W. Pantleon, In situ measurements of X-ray peak profile asymmetry from individual grains. Proceedings of the 15th International Conference on Strength of Materials. 2010



Konferenceartikler, ikke peer reviewed

Patenter, patentansøgninger

2011

A thermoelectric thin film, Sun, Y.; M.; Christensen, M.; Iversen, B. B., 2011, PA201170483 (patent application)

Method for producing a thermoelectric solid element, Yin, H.; Christensen, M.; Iversen, B. B., 2011, PA 201170394 (patent application)

Datasæt (x hvis afleveret til Dansk Data Arkiv)

Planlagte publikationer (angiv type)

Populær videnskabelig formidling

Fx forskningsformidlende bøger/antologier, kronikker, tv, mm.

Balog, S., U. Gasser, P. Boillat, P. Oberholzer, G.G. Scherer, E. Lehmann, K. Mortensen; Neutrons for Fuel Cell. Swiss Neutron News 38, 4-13 (2010). http://sgn.web.psi.ch/sgn/snn/snn_37.pdf

Lefmann, K., L. Arleth, N.B. Christensen, S.P. Møller, S. Skelboe, P.K. Willendrup; ESS, en forskningsfacilitet i verdensklasse under opbygning i Lund, KVANT 22/1, 25-32 (2011)

Mortensen, Kell; Fantastic plastic. In "Inside materials - Seeing with neutron eyes", ESS, 15, 2010, (Ed. Axel Steuer and Nina Hall. Design & print: h2o Brand Vision Limited)

Rønholt, S., J.C. Knudsen, K. Mortensen, N. Kaufmann, P. Buldo, L. Wiking, U. Andersen; Fedtstruktur - Innovation af smør og blandingsprodukter. Mejeri Tidende. 124 8-9, 2011 <http://www.maelkeritidende.dk/mt/mt2011/MT6-2011.pdf>

Rådgivning

Fx artikler, videnskabelige rapporter, mm.

Undervisning

Fx lærebøger, kompendier, kurser, kandidatuddannelser

DANSCATT bidrager til at en lang række studerende (se venligst bilag 1) på både bachelor-, kandidat- og Ph.d.-niveau kan deltage i måletidsrejser og foretage eksperimenter, både i forbindelse med kurser og som en del af arbejdet med deres specialer og afhandlinger.

8. Andre resultater/spin off affødt af projektet

Nye samarbejder nationalt og internationalt

DANSCATT sætter rammen omkring de danske brugergrupper og giver derved det netværk der skal til for at åbne nye muligheder. DANSCATT grupper har spillet en meget aktiv rolle i udredningen af dansk forskningsinfrastruktur og spillet ind med en række nye forslag til strålerør ved den planlagte MAX-IV synkrotron i Lund. Derudover giver DANSCATT det netværk der understøtter den danske instrumenteringskompetence, som skal sikre danske brugergrupper væsentlig indflydelse på ESS. Endelig arbejdes der også for danske in-kind bidrag til XFEL i Hamborg.

Nye ansøgninger, der er direkte afledt af bevillingens forskningsresultater

Ny finansiering, baseret på bevillingens forskningsresultater

Nye teknologier, metoder, processer, mv. baseret på bevillingens forskningsresultater

Nye produkter, baseret på bevillingens forskningsresultater

Nye virksomheder, baseret på bevillingens forskningsresultater

9. Formidlingsegnet sammenfatning egnet til offentliggørelse på www.fi.dk

Vejledning:


Beskriv på en enkel og forståelig måde det gennemførte forskningsprojekt på maksimum 1.000 anslag på dansk og 1.000 anslag på engelsk. Beskrivelsen vil blive offentliggjort uredigeret på Forsknings- og Innovationsstyrelsens hjemmeside www.fi.dk. Beskrivelsen kan tage udgangspunkt i følgende spørgsmål:

- Hvad handler dit forskningsprojekt om?
- Hvad er formålet med dit projekt?
- Har dit projekt ført til interessant ny viden?
- Hvad er de vigtigste problemstillinger i projektet?
- Hvilke spændende perspektiver ser du i dit projekt?
- Vil dit projekt kunne få en samfundsmæssig betydning?
- Fører dit projekt til nye forskningsprojekter?

Formidlingsegnet præsentation (se vejledning herover):

Fremtidens avancerede materialer og lægemidler vil kræve større kendskab og forståelse af materialer og biologiske systemer på nanometer og molekylær skala. Røntgen- og neutronstråling to uhyre vigtige redskaber, som kan give denne information. Røntgen og neutronspreddning foretages i dag ikke længere i laboratoriet, men ved store internationale forskningsfaciliteter. Røntgenstråling fremstilles således ved store synkrotronstrålingsfaciliteter og neutroner ved enten reaktorer eller spallationskilder. Apparaturet og opstillingerne er blevet så store og avancerede, at de enkelte forskergrupper ikke længere har mulighederne for selv at anskaffe dem. DANSCATT's hovedformål er at sikre danske brugergrupper adgang til de bedste faciliteter ved blandt andet at støtte målrejser til disse faciliteter. Danmark er medlem af faciliteter som European Synchrotron Radiation Facility i Grenoble og European XFEL i Hamborg. Desuden er Danmark medvært ved den Europæiske Spallationskilde ESS i Lund. DANSCATT sikrer den langsigtede danske kompetence inden for området, som vil give størst gennemslagskraft for danske grupper inklusiv virksomheder ved de nye faciliteter.

Maks. 5 vigtigste publikationer

Lock, N., M. Christensen, K.M.Ø. Jensen, B.B. Iversen; One-Step Low-Temperature Synthesis of Nanocrystalline y- 

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Andre væsentlige resultater

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List of Publications 2010-11 (bilag 2)

Dept. of Chemistry, Aarhus University

2011

- Babanova, O.A., A.V. Soloninin, A.V. Skripov, D.B. Ravnsbæk, T.R. Jensen, Y. Filinchuk; Reorientational Motion in Alkali-Metal Borohydrides: NMR Data for RbBH₄ and CsBH₄ and Systematics of the Activation Energy Variations. *Journal of Physical Chemistry C*. **2011**, 115, 10305–10309
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