**Current and Pending Support\***

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| Support information is required for each key personnel / senior investigator, including persons at collaborating institutions funded through subcontracts. All financial resources (Federal, non-Federal, commercial, or institutional) should be included. If another investigator is the lead PI on a reported grant/FWP, please put the lead PI’s last name in parentheses after the investigator’s name in the “Investigator” box for the reported grant/FWP. For each project, provide a brief paragraph describing the research. Explicitly delineate the scientific scope with respect to this proposal/award. If there is no overlap provide a statement to that effect. For national laboratory staff, if support does not total 12 person-months, an explanation should be provided. For university faculty, explanations should be provided for support beyond normal summer-month levels. Copy the table below and add additional sheets as necessary.  \*This form has been modified from NSF 00form1239. | |
| **Investigator: «=firstname»** | Other Agencies to which this proposal has been/will be submitted: |
| Support (Current, Pending, Submission Planned in Future or Transfer of Support): C | |
| Project/Proposal Title and grant number, if appropriate:  Argonne-Northwestern Solar Energy Research (ANSER) Center – DE-SC0001059/0005 | |
| Source of Support: DOE Location of Project: Northwestern University | |
| Annual Award Amount: $3,800,000 Total Award Period Covered: 8/1/09-7/31/18 | |
| Annual Award Amount to PI’s Research: $90,036 | |
| Person-Months Per Year Committed to Project: 0.38 Pers. Months; Specify: Cal., Acad., or Sumr: Acad | |
| Describe Research Including Synergies and Delineation with Respect to this Proposal/Award:  The aim of this grant is to develop and characterize interfacial treatments for organic photovoltaic devices. This is my only grant in the field of solar energy research, and thus it does not overlap with any of the other grants below. | |
| **Investigator: Mark Hersam** | Other Agencies to which this proposal has been/will be submitted: |
| Support (Current, Pending, Submission Planned in Future or Transfer of Support): C | |
| Project/Proposal Title and grant number, if appropriate:  Center for Electrochemical Energy Science (CEES) | |
| Source of Support: DOE/BES/ANL Location of Project: Northwestern University | |
| Annual Award Amount: $ 800,000 Total Award Period Covered: 08/01/14-07/30/18 | |
| Annual Award Amount to PI’s Research: $157,503 | |
| Person-Months Per Year Committed to Project: 0.5 Pers. Months; Specify: Cal., Acad., or Sumr: Sumr | |
| Describe Research Including Synergies and Delineation with Respect to this Proposal/Award:  The aim of this grant is to understand and control the molecular-scale reactivity of model electrified oxide interfaces, films and materials lithium-ion battery systems. There is no overlap with the ANSER EFRC grant. | |
| **Investigator: Mark Hersam** | Other Agencies to which this proposal has been/will be submitted: |
| Support (Current, Pending, Submission Planned in Future or Transfer of Support): C | |
| Project/Proposal Title and grant number, if appropriate:  SISGR: Ultrafast Molecular Scale Chemical Imaging DESC0001785/003 | |
| Source of Support: DOE Location of Project: Northwestern University | |
| Annual Award Amount: $1,200,000 Total Award Period Covered: 09/15/09–09/14/15 | |
| Annual Award Amount to PI’s Research: $207,692 | |
| Person-Months Per Year Committed to Project: 0.5 Pers. Months; Specify: Cal., Acad., or Sumr: Sumr | |
| Describe Research Including Synergies and Delineation with Respect to this Proposal/Award:  The aim of this grant is to develop ultrafast ultrahigh vacuum tip-enhanced Raman spectroscopy. There is no overlap with the ANSER EFRC grant. | |
| **Investigator: Mark Hersam** | Other Agencies to which this proposal has been/will be submitted: |
| Support (Current, Pending, Submission Planned in Future or Transfer of Support): C | |
| Project/Proposal Title and grant number, if appropriate:  Synthesis and Modification of Graphene for Catalytic and Plasmonic Applications 3J-30081/3J-30081-0016A | |
| Source of Support: DOE / ANL Location of Project: Northwestern University | |
| Annual Award Amount: $57,203 Total Award Period Covered: 12/14/13-12/13/15 | |
| Annual Award Amount to PI’s Research: $57,203 | |
| Person-Months Per Year Committed to Project: 0.09 Pers. Months; Specify: Cal., Acad., or Sumr: Acad | |
| Describe Research Including Synergies and Delineation with Respect to this Proposal/Award:  The aim of this grant is to develop chemically modified graphene for catalytic and plasmonic applications. There is no overlap with the ANSER EFRC grant. | |
| **Investigator: Mark Hersam** | Other Agencies to which this proposal has been/will be submitted: |
| Support (Current, Pending, Submission Planned in Future or Transfer of Support): C | |
| Project/Proposal Title and grant number, if appropriate:  Synthesis and Modification of Graphene for Catalytic and Plasmonic Applications 3J-30081/3J-30081-0015A | |
| Source of Support: DOE/ANL Location of Project: Northwestern University | |
| Annual Award Amount: $16,500 Total Award Period Covered: 12/14/13-12/13/15 | |
| Annual Award Amount to PI’s Research: $16,500 | |
| Person-Months Per Year Committed to Project: 0.09 Pers. Months; Specify: Cal., Acad., or Sumr: Acad | |
| Describe Research Including Synergies and Delineation with Respect to this Proposal/Award:  The aim of this grant is to develop chemically modified graphene for catalytic and plasmonic applications. There is no overlap with the ANSER grant. | |
| **Investigator: Mark Hersam** | Other Agencies to which this proposal has been/will be submitted: |
| Support (Current, Pending, Submission Planned in Future or Transfer of Support): C | |
| Project/Proposal Title and grant number, if appropriate:  Integrating Two-Dimensional Nanomaterials and Molecular Dielectrics for Radiation-Hard Non-Volatile Memory NNX12AM44H/000001 | |
| Source of Support: NASA Location of Project: Northwestern University | |
| Annual Award Amount: $68,000 Total Award Period Covered: 9/1/12-8/31/15 | |
| Annual Award Amount to PI’s Research: $68,000 | |
| Person-Months Per Year Committed to Project: 0.09 Pers. Months; Specify: Cal., Acad., or Sumr: Acad | |
| Describe Research Including Synergies and Delineation with Respect to this Proposal/Award:  The aim of this grant is to develop radiation-hard non-volatile memory based on graphene, MoS2, and molecular dielectrics. There is no overlap with the ANSER EFRC grant. | |
| **Investigator: Mark Hersam** | Other Agencies to which this proposal has been/will be submitted: |
| Support (Current, Pending, Submission Planned in Future or Transfer of Support): C | |
| Project/Proposal Title and grant number, if appropriate:  Excitonics Based on Carbon Nanomaterials: A Pathway Toward Low-Power, High-Speed, and Radiation-Hard Computation NNX11AM87H | |
| Source of Support: NASA Location of Project: Northwestern University | |
| Annual Award Amount: $68,000 Total Award Period Covered: 9/1/11-8/31/15 | |
| Annual Award Amount to PI’s Research: $68,000 | |
| Person-Months Per Year Committed to Project: 0.09 Pers. Months; Specify: Cal., Acad., or Sumr: Acad | |
| Describe Research Including Synergies and Delineation with Respect to this Proposal/Award:  The aim of this grant to develop carbon nanotube and graphene nanoelectronic devices that are radiation hard. There is no overlap with the ANSER EFRC grant. | |
| **Investigator: Mark Hersam** | Other Agencies to which this proposal has been/will be submitted: |
| Support (Current, Pending, Submission Planned in Future or Transfer of Support): C | |
| Project/Proposal Title and grant number, if appropriate:  Carbon Nanotube Structure-Activity Relationships for Predictive Toxicology – 0521 GRA276/1R01ES022698 | |
| Source of Support: UCLA/NIH Location of Project: Northwestern University | |
| Annual Award Amount: $105,503 Total Award Period Covered: 12/9/13-10/31/18 | |
| Annual Award Amount to PI’s Research: $105,503 | |
| Person-Months Per Year Committed to Project: 0.72, 0.24 Pers. Months; Specify: Cal., Acad., or Sumr: Acad, Sumr | |
| Describe Research Including Synergies and Delineation with Respect to this Proposal/Award:  The objective of this project is to develop a predictive toxicological approach for carbon nanotube safety assessment. There is no overlap with the ANSER EFRC grant. | |
| **Investigator: Mark Hersam** |
| Support (Current, Pending, Submission Planned in Future or Transfer of Support): C | |
| Project/Proposal Title and grant number, if appropriate:  Preparation, Characterization, and Application of Monodisperse Carbon-Based Nanomaterials DMR-1006391-04 | |
| Source of Support: NSF Location of Project: Northwestern University | |
| Annual Award Amount: $128,000 Total Award Period Covered: 7/1/10-6/30/15 | |
| Annual Award Amount to PI’s Research: $128,000 | |
| Person-Months Per Year Committed to Project: 0.09 Pers. Months; Specify: Cal., Acad., or Sumr: Acad | |
| Describe Research Including Synergies and Delineation with Respect to this Proposal/Award:  The aim of this grant is to develop separation strategies for carbon nanotubes and graphene. There is no overlap with the ANSER EFRC grant. | |
| **Investigator: Mark Hersam** |
| Support (Current, Pending, Submission Planned in Future or Transfer of Support): C | |
| Project/Proposal Title and grant number, if appropriate:  CEMRI: Multifunctional Nanoscale Material Structures DMR-1121262 | |
| Source of Support: NSF Location of Project: Northwestern University | |
| Annual Award Amount: $3,240,000 Total Award Period Covered: 9/15/11-8/31/17 | |
| Annual Award Amount to PI’s Research: $2,460,365 | |
| Person-Months Per Year Committed to Project: 0.18 Pers. Months; Specify: Cal., Acad., or Sumr: Acad | |
| Describe Research Including Synergies and Delineation with Respect to this Proposal/Award:  The aim of this grant is to develop and characterize organic/inorganic nanoelectronic materials and devices. There is no overlap with the ANSER EFRC grant. | |
| **Investigator: Mark Hersam** |
| Support (Current, Pending, Submission Planned in Future or Transfer of Support): C | |
| Project/Proposal Title and grant number, if appropriate:  CEIN: Predictive Toxicology Assessment and Safe Implementation of Nanotechnology in the Environment 0521 GNA210//DBI-0830117 | |
| Source of Support: NSF/UCLA Location of Project: Northwestern University | |
| Annual Award Amount: $90,000 Total Award Period Covered: 9/1/10-8/31/18 | |
| Annual Award Amount to PI’s Research: $90,000 | |
| Person-Months Per Year Committed to Project: 0.09 Pers. Months; Specify: Cal., Acad., or Sumr: Acad | |
| Describe Research Including Synergies and Delineation with Respect to this Proposal/Award:  The aim of this grant is to study the environmental implications of two-dimensional materials including graphene and transition metal dichalcogenides. There is no overlap with the ANSER EFRC grant. | |
| **Investigator: Mark Hersam** |
| Support (Current, Pending, Submission Planned in Future or Transfer of Support): C | |
| Project/Proposal Title and grant number, if appropriate:  EFRI 2-DARE: Scalable Growth and Fabrication of Anti-Ambipolar Heterojunction Devices – EFRI-1433510 | |
| Source of Support: NSF Location of Project: Northwestern University | |
| Annual Award Amount: $354,285 Total Award Period Covered: 9/1/14-8/31/18 | |
| Annual Award Amount to PI’s Research: $105,506 | |
| Person-Months Per Year Committed to Project: 0.24 Pers. Months; Specify: Cal., Acad., or Sumr: Sumr | |
| Describe Research Including Synergies and Delineation with Respect to this Proposal/Award:  The aim of this grant is to develop anti-ambipolar heterojunction devices. There is no overlap with the ANSER EFRC grant. | |
| **Investigator: Mark Hersam** |
| Support (Current, Pending, Submission Planned in Future or Transfer of Support): C | |
| Project/Proposal Title and grant number, if appropriate:  Functionalized Two-Dimensional Nanoelectronic Heterostructures – N00014-14-1-0669 | |
| Source of Support: ONR Location of Project: Northwestern University | |
| Annual Award Amount: $180,000 Total Award Period Covered: 7/1/14-6/30/17 | |
| Annual Award Amount to PI’s Research: $180,000 | |
| Person-Months Per Year Committed to Project: 0.5 Pers. Months; Specify: Cal., Acad., or Sumr: Acad | |
| Describe Research Including Synergies and Delineation with Respect to this Proposal/Award:  The aim of this grant is to develop two-dimensional heterostructures for nanoelectronic devices. There is no overlap with the ANSER EFRC grant. | |
| **Investigator: Mark Hersam** |
| Support (Current, Pending, Submission Planned in Future or Transfer of Support): C | |
| Project/Proposal Title and grant number, if appropriate:  Establishing New Classes of Tunable Two-Dimensional Nanomaterials via Atomically Precise Chemical Modification of Graphene | |
| Source of Support: W. M. Keck Foundation Location of Project: Northwestern University | |
| Annual Award Amount: $250,000 Total Award Period Covered: 7/1/11-6/30/14 | |
| Annual Award Amount to PI’s Research: $250,000 | |
| Person-Months Per Year Committed to Project: 0.9 Pers. Months; Specify: Cal., Acad., or Sumr: Acad | |
| Describe Research Including Synergies and Delineation with Respect to this Proposal/Award:  The aim of this grant is to develop novel two-dimensional nanomaterials via chemical modification of graphene. There is no overlap with the ANSER EFRC grant. | |
| **Investigator: Mark Hersam** | |
| Support (Current, Pending, Submission Planned in Future or Transfer of Support): C | |
| Project/Proposal Title and grant number, if appropriate:  Nanomanufacturing for Enhancing the Human-Machine Interface: Roll-to-Roll, High Speed Printing of Multifunctional, Distributed Sensor Networks on Flexible Plastic Substrates - A002181204//N00014-11-1-0690 | |
| Source of Support: ONR/UMinn. Location of Project: Northwestern University | |
| Annual Award Amount: $400,000 Total Award Period Covered: 7/1/11-6/30/14 | |
| Annual Award Amount to PI’s Research: $200,000 | |
| Person-Months Per Year Committed to Project: 0.25 Pers. Months; Specify: Cal., Acad., or Sumr: Sumr | |
| Describe Research Including Synergies and Delineation with Respect to this Proposal/Award:  The aim of this grant is to develop printed electronic circuits based on carbon nanotube and dielectric inks. There is no overlap with the ANSER EFRC grant. | |
| **Investigator: Mark Hersam** | |
| Support (Current, Pending, Submission Planned in Future or Transfer of Support): C | |
| Project/Proposal Title and grant number, if appropriate:  Advanced Materials Center for Excellence: Center for Hierarchical Materials Design (ChiMaD) | |
| Source of Support: NIST Location of Project: Northwestern University | |
| Annual Award Amount: $5,000,000 Total Award Period Covered: 1/1/14-12/31/18 | |
| Annual Award Amount to PI’s Research: $81,523 | |
| Person-Months Per Year Committed to Project: 0.5 Pers. Months; Specify: Cal., Acad., or Sumr: Acad | |
| Describe Research Including Synergies and Delineation with Respect to this Proposal/Award:  The aim of this grant is to develop doping strategies for low-dimensional electronic materials. There is no overlap with the ANSER EFRC grant. | |
| **Investigator: Mark Hersam** |
| Support (Current, Pending, Submission Planned in Future or Transfer of Support): P | |
| Project/Proposal Title and grant number, if appropriate:  Solution-Processed Monodisperse Nanoelectronic Heterostructures | |
| Source of Support: NSF Location of Project: Northwestern University | |
| Annual Award Amount: $150,000 Total Award Period Covered: 7/1/15-6/30/18 | |
| Annual Award Amount to PI’s Research: $150,000 | |
| Person-Months Per Year Committed to Project: 0.22 Pers. Months; Specify: Cal., Acad., or Sumr: Sumr | |
| Describe Research Including Synergies and Delineation with Respect to this Proposal/Award:  The aim of this grant is to develop solution-based methods for forming monodisperse nanoelectronic heterostructures. There is no overlap with the ANSER EFRC grant. | |
| **Investigator: Mark Hersam** |
| Support (Current, Pending, Submission Planned in Future or Transfer of Support): P | |
| Project/Proposal Title and grant number, if appropriate:  UTSA-NU Partnership for Research Education in Materials (PREM) Science | |
| Source of Support: NSF Location of Project: Northwestern University | |
| Annual Award Amount: $50,000 Total Award Period Covered: 9/1/15-8/31/20 | |
| Annual Award Amount to PI’s Research: $0 | |
| Person-Months Per Year Committed to Project: 0 Pers. Months; Specify: Cal., Acad., or Sumr: | |
| Describe Research Including Synergies and Delineation with Respect to this Proposal/Award:  The aim of this grant is to develop a collaborative research and education program with the University of Texas at San Antonio. There is no overlap with the ANSER EFRC grant. | |
| **Investigator: Mark Hersam** |
| Support (Current, Pending, Submission Planned in Future or Transfer of Support): P | |
| Project/Proposal Title and grant number, if appropriate:  Continued Development and Support for NSF-MRSEC, NSF-PREM, and NSF-MRFN Websites | |
| Source of Support: NSF Location of Project: Northwestern University | |
| Annual Award Amount: $68,000 Total Award Period Covered: 9/1/14-8/31/16 | |
| Annual Award Amount to PI’s Research: $68,000 | |
| Person-Months Per Year Committed to Project: 0 Pers. Months; Specify: Cal., Acad., or Sumr: | |
| Describe Research Including Synergies and Delineation with Respect to this Proposal/Award:  The aim of this grant is to develop a website for the NSF-MRSEC, NSF-PREM, and NSF-MRFN programs. There is no overlap with the ANSER EFRC grant. | |
| **Investigator: Mark Hersam** |
| Support (Current, Pending, Submission Planned in Future or Transfer of Support): P | |
| Project/Proposal Title and grant number, if appropriate:  SNM: Scalable Nanomanufacturing of Graphene-Based Real-Time Water Sensors through Inkjet Printing | |
| Source of Support: NSF/UW-Milwaukee Location of Project: Northwestern University | |
| Annual Award Amount: $174,216 Total Award Period Covered: 8/1/15-7/31/19 | |
| Annual Award Amount to PI’s Research: $174,216 | |
| Person-Months Per Year Committed to Project: 0.1 Pers. Months; Specify: Cal., Acad., or Sumr: Sumr | |
| Describe Research Including Synergies and Delineation with Respect to this Proposal/Award:  The aim of this grant is to develop printable graphene inks for real-time water sensing. There is no overlap with the ANSER EFRC grant. | |