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| Michael W. McDowell |
| PO Box 30167**Knoxville, TN 37930-0167** |
| 630.878.9596 |
| MikeMcD01@gmail.com |
| Background Summary | Senior Scientific Associate with extensive experience in beamline operations, sample environments, and accelerator subsystems. |
| Experience | Oak Ridge National Laboratory *Scientific Associate* Support of user operations at the High Flux Isotope Reactor triple axis beamlines.Argonne National Laboratory | 2002- 2023 |
|  | Senior Scientific AssociateSupport of daily user operations at APS Sectors 4ID, 6ID, and 29ID beamlines.Install, maintain, troubleshoot, and test beamline components and systems.Evaluate and recommend designs, techniques, bids, drawings and methods used for R&D activities.Coordinate contractor and support group efforts at the five magnetic materials group beamlines.Inspect and certify unlisted and non-commercial electrical equipment. Safety coordinator for Magnetic Materials group. |  |
|  | Argonne National Laboratory | 1990 - 2002 |
|  | Senior TechnicianOperation and maintenance of x-ray photoelectron spectroscopy and auger electron spectroscopy systems.Performed experiments and compiled data for the APS Surface Science Laboratory.Fabricated mechanical, electronic, and vacuum systems as required for Surface Science Laboratory and APS Accelerator operations.Worked as part of the APS Accelerator Systems Vacuum group to assemble and maintain the APS storage ring and accelerator vacuum systems. |  |
|  | United States NavyFire Control TechnicianOperation, maintenance and component level troubleshooting of AN/SPG53F gun fire control radar.Supervised damage control readiness for all weapons division workspaces.Operation Earnest Will Operation Praying Mantis Held SECRET clearance from January 1987 until honorably discharged. | **1986-1990** |
| **Education** |  |  |
|  | American Vacuum Society coursesU.S. Navy Electronics Schools, AN/SPG53F radar, Fire Control Technician ‘A’ School, Basic Electricity/Electronics.Downers Grove South High School | **1990-2000****1986-1988****1980-1984** |
| **Awards** | Argonne National Laboratory Spotless AwardArgonne National Laboratory Pacesetter Award Argonne National Laboratory Pacesetter AwardIllinois governors’ pollution prevention awardU.S. Navy combat action ribbon, joint meritorious unit award, armed forces expeditionary medal, meritorious unit commendation, navy good conduct medal, sea service deployment ribbon, enlisted surface warfare specialist. | **2013****2012****2005****1995****1986-1990** |
| Publications | Y. Li, D. Ryding, C. Liu, T.M. Kuzay, M.W. McDowell, R.A. Rosenberg, "X-ray Photoelectron Spectroscopy Analysis of Cleaning Procedures for Synchrotron Radiation Beamline Materials at the Advanced Photon Source," J. Vac. Sci. Technol. A **13** (3), May, 576-580 (1995).Q. Ma, M.W. McDowell, R.A. Rosenberg, "Characterization of SIC Fibers by Soft X-Ray Photoelectron and Photoabsorption Spectroscopies and Scanning Auger Microscopy," Materials Research Society Spring Meeting, (1996), 219.R.A. Rosenberg, M.W. McDowell, "6063 Aluminum Alloy by XPS," Surf. Sci. **2**, 109 (1994). R.A. Rosenberg, M.W. McDowell, "2219 Aluminum Alloy by XPS," Surf. Sci. **2**, 113 (1994). R.A. Rosenberg, M.W. McDowell, Q. Ma, K.C. Harkay, "X-ray photoelectron spectroscopy and secondary electron yield analysis of Al and Cu samples exposed to an accelerator environment," J. Vac. Sci. Technol. A **21** (5), September, 1625-1630 (2003).R.A. Rosenberg, M.W. McDowell, J.R. Noonan, "XPS Analysis of Aluminum and Copper Cleaning Procedures for the Advanced Photon Source," J. Vac. Sci. Technol. A **12**, 1755 (1994). D. Ryding, C. Liu, T.M. Kuzay, M.W. McDowell, R.A. Rosenberg, "X-ray Photoelectron Spectroscopy Analysis of Cleaning Procedures for Synchrotron Radiation Beamline Materials at the Advanced Photon Source," J. Vac. Sci. Technol. A **13**, 576 (1995). |  |
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