Arthur J. Nozik is a Research Professor, Emeritus in the Department of Chemistry and a Fellow Emeritus at the CU-NREL Joint Institute for Renewable and Sustainable Energy (RASEI), both at the University of Colorado, Boulder; he is also a Senior Research Fellow, Emeritus at the U.S DOE National Renewable Energy Laboratory (NREL) in Golden CO. From 2007-2012, Nozik was Director of the Center for Advanced Solar Photophysics under the Colorado Collaboratory for Renewable Energy, and from 2007-2012 Associate Director of a Joint Los Alamos National Lab/NREL Energy Frontier Research Center for Revolutionary Solar Photoconversion.

Nozik received his BChE in Chemical Engineering from Cornell University in 1959 and a PhD in Physical Chemistry from Yale University in 1967. Nozik's research interests include size quantization and hot carrier effects in semiconductor quantum dots (QDs) and nanostructures, including multiple exciton generation (MEG) from a single photon; the applications of unique quantum effects in nanostructures to advanced approaches for greatly enhanced solar photon conversion efficiencies to electricity and solar fuels; photogenerated carrier relaxation dynamics in various semiconductor structures; photoelectrochemistry of semiconductor-molecule interfaces; photoelectrochemical energy conversion, photocatalysis; optical, magnetic and electrical properties of solids; and Mössbauer spectroscopy. He has published over 241 papers (h-factor = 101 with 52,000 citations) and book chapters in these fields, written or edited 6 books, holds 11 U.S. patents, and has delivered over 387 invited talks at universities, conferences, and symposia. He has received many awards and honors in chemical physics/solar energy research including election in 2024 to the American Academy of Arts and Sciences, the 2016 Wilbur Cross Medal of the Yale Graduate School; the 2008 Eni Award (from the President of Italy); the 2013 Heinz Gerischer Award of the Electrochemical Society; the 2011 Esselen Award (at Harvard University) for Chemistry in the Public Interest from the American Chemical Society; the 2009 Research Award of the U.N. Intergovernmental Renewable Energy Organization; the Thomson Reuters/Clarivate Analytica Highly Cited Researcher Designation in 2014 in Chemistry and in 2018 in Physics; the 2002 Research Award of the Electrochemical Society, Energy Technology Division; a Named and Endowed annual Nozik Lecture was established in 2022 at RASEI at the Univ. of Colorado; an Honorary Nozik Director's Postdoctoral Fellowship was established in 2014 at NREL;

Nozik was a Senior Editor of The Journal of Physical Chemistry for 12 years and has served on the editorial boards of many journals. A Special Festschrift Issue of The Journal of Physical Chemistry honoring Nozik's scientific career appeared in a December 2006 issue and a special Research Symposium was held in his honor at the University of Colorado in 2016. Nozik is a Fellow of the American Physical Society, the American Association for the Advancement of Science, and the Royal Society of Chemistry; he is also a member of the American Chemical Society, the Electrochemical Society, the Material Research Society, and Sigma XI.

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Nozik entered Cornell University in 1953 in the chemical engineering department (a 5-year program). He graduated from Cornell in 1959 and accepted a position in the aerospace industry (Douglas Aircraft Company) in Southern California researching rocket fuel for the Atlas rocket. However, he realized that he much preferred basic science to engineering, and in 1960 he enrolled in the PhD program at Yale in physical chemistry. During his first year at Yale, Rhoda and Arthur were happy to produce their 1st child, so he then left Yale in 1961 with an M.S. and took a position at the Central Research Labs of the American Cyanamid Company to support his family). After 3 years Nozik received a company scholarship that allowed him to return to Yale in 1964, to resume my PhD studies on Mossbauer spectroscopy (recoilless nuclear resonance fluorescence). During his second period at Yale, Rhoda and Arthur were again happy to welcome into the world their second daughter, born in 1966.

I returned to work for Cyanamid after graduation in 1967 and conducted research on the optical properties of semiconductors, and on novel approaches to solar energy conversion This was very timely because the energy crisis of 1973-1974 was about to paralyze the U.S. and new approaches to efficient solar energy conversion and solar hydrogen production offered a potential solution to the energy crisis as well as the great current issue of climate change due to fossil fuel use. In 1974 I moved to the Allied Chemical Corporation (now part of Honeywell) in Morristown, NJ to continue my research on the conversion of solar light to electricity (photovoltaics) and solar fuels (artificial photosynthesis). In 1978 I moved to a new National Laboratory formed by President Carter in Golden, CO (Solar Energy Research Institute—renamed NREL in 1990 by President Bush) ) and was active there in solar conversion research as a Sr. Research fellow until I became Emeritus in 2016. Since 1999 I was also associated with the University of Colorado in Boulder as an Adjoint Professor and supervised many graduate students who did their thesis research at NREL. In 2016 I transitioned to Research Professor at CU. My research activity during this more recent period is summarized above in my Professional Bio.

ACTIVITIES & INTERESTS: Hiking, downhill & cross-country skiing, mountain and road biking, history, and all sectors of science.