

**Two-page Biographical Sketch –modified from NSF (this should serve as a general guideline, it is not critical that you follow the format exactly)**

**Sample Format:**

Name: Robert E. Peale

Job Title: Professor

Professional Address: Physics Department

Telephone number

Email address: Robert E. Peale

\*Note: No personal information (e.g. home address, home phone, marital status) should be included\*

*The following information should be provided preferably in the order and format specified below:*

**(a) Professional Preparation**

A list of the individual's undergraduate and graduate education and postdoctoral training as indicated below:

University of California	Berkeley CA	Physics	BA 1983
Cornell University	Ithaca NY	Physics	PhD 1990
Lehigh University	Bethlehem PA	Area	Degree and Year

**(b) Appointments**

In reverse chronological order, list the individual's academic/professional appointments.

Professor UCF 2003

Associate Professor UCF 1997

Assistant Professor UCF 1991

**(c) Publications**

(i) Five (5) most current publications

1. "Antenna-coupled graphene josephson-junction terahertz detector," F. Javier Gonzalez, Michael S. Lodge, Masahiro Ishigami, Richard A. Klemm, Ami Rathod, Kirsten L. Lina, Anna C. Bowman, Francisco Hernandez, Chris J. Fredricksen, Coleman Cariker & R. E. Peale, MRS Advances (2023), <https://doi.org/10.1557/s43580-023-00546-w>
2. "Pixelated carbon nanotube forests," Darian Smalley, Masa Ishigami & R. E. Peale, MRS Advances (2023), <https://doi.org/10.1557/s43580-023-00527-z>
3. "Infrared surface-plasmon-resonance attenuator for broadly controllable effective radiant temperature," R.E. Peale, P.N. Figueiredo, Justin R. Phelps, Kevin C. Chan, Reza Abdolvand, Evan M. Smith, Shivashankar Vangala, Infrared Physics & Technology 125, 104253 (2022).
4. "The sliding aperture transform and its applicability to deep-level, transient spectroscopy," Walter Raymond Buchwald, Robert E. Peale, Perry C. Grant, Julie V. Logan, Preston T. Webster, Christian P Morath, Appl. Sci. 2022, 12(11), 5317; <https://doi.org/10.3390/app12115317>

5. "Selective terahertz absorber for angle and polarization-independent spectral sensing," Christopher Arose, Anthony C. Terracciano, Robert E. Peale, and Subith S. Vasu, *Optics Lett.* 47, 1514 (2022).

(ii) Five (5) other significant publications

1. "Hydrogenation of Boron Carbon Nitride Thin Films for Low-k Dielectric Applications" S. D. Nehate, S. Sundaresh, R. Peale, K. B. Sundaram, *ECS J. Solid State Sci. Technol.* 10, 093001 (2021).
2. "Infrared Propagating Electromagnetic Surface Waves Excited by Induction," Jonathan R. Brescia, Justin W. Cleary, Evan M. Smith, Robert E. Peale, *MRS Advances* 5, 1827-1836 (2020).
3. "Plasmonic infrared-laser attenuator," P. N. Figueiredo, S. R. DeMonaco, J. R. Phelps, R. Abdolvand, Reza; R. E. Peale, *Infrared Physics and Technology* **111**, 103561 (2020) DOI: 10.1016/j.infrared.2020.103561.
4. "Far-infrared spectrally selective LiTaO<sub>3</sub> and AlN pyroelectric detectors using resonant subwavelength metal surface structures," Christopher Arose, Anthony C. Terracciano, Robert E. Peale, Francisco Javier Gonzalez, Zachary Loparo, John Cetnar, Subith S. Vasu, *MRS Advances* 5, 2005 (2020).
5. "Spray-deposited metal-chalcogenide photodiodes for low cost infrared imagers," Tommy O. Boykin II, Nagendra Dhakal, Javaneh Boroumand, F. Javier Gonzalez, Isaiah O. Oladeji, Pedro Figueiredo, Stephen Neushul, and Robert E. Peale, *MRS Advances* 5, 2013 (2020).

**(d) Graduate teaching experience**

- List graduate courses taught within the last 7 years, include date (semester and year)
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- PHY 5346 ELECTRODYNAMICS I (fall 2022, 2021, 2020, 2019, 2018, 2017, 2016)
- PHY 6347 ELECTRODYNAMICS II (spring 2023, 2022, 2021, 2020, 2019, 2018, 2017)
- PHY-6918 Directed Research (fall 2021, fall 2020, su 2020 su 2019, fall 2017)
- PHY-5917-Directed Research (summer 2019, spring 2019)
- PHY 5817L-BUILDING PHYSICS APPARATUS (summer 2021, summer 2019)
- PHY 6938 ST Electrodynamics III (fall 2020, fall 2018, fall 2017)
- PHY 7980 Dissertation (summer 2019, spring 2019, fall 2018, summer 2018, spring 2018, fall 2017)
- PHY-6908 Independent study (summer 2018)
- PHY-6971 Thesis (summer 2018, spring 2018)

**(e) Graduate students mentored (to completion, if applicable)**

- List up to 5 most recent-
- Mehmet Yesiltas, "Synchrotron based infrared microspectroscopy of carbonaceous chondrites" (2015)
- Sarmad Alhasan (2017).
- Hussain Abouelkhair, "Molybdenum disulfide solar cells" (2017).
- Seth Calhoun, "Wavelength Selective Bolometers" (2019).

- Chris Arose, “Spectrally selective pyroelectric detectors for THz sensing” (2023)
- List up to 5 most recent- Member of thesis/dissertation committees, overall number, names of students, degree, year graduated Many. Not keeping track.
- List total number of graduate students mentored on thesis/dissertation committees over the course of your career. Twenty PhD Dissertations. Nine Masters Theses.

**(f) Other synergistic activities related to Graduate Education**

A list of up to **five distinct examples** that demonstrate the broader impact of the individual’s professional and scholarly activities that focuses on the integration and transfer of knowledge as well as its creation.

1. Development of grad courses Electrodynamics I, II, III, Building Physics Apparatus.
2. Twelve US patents awarded
3. Summer fellowships and employment at NASA-KSC, AFRL-Hanscom, AFRL-Wright-Patterson, Cirent Microelectronics, founding of Zaubertek Inc and Truventic LLC.