



# ANTONIA INTZE

## EDUCATION AND TRAINING

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### PhD student in Life Sciences program

*Department of Biochemical Sciences, Sapienza University of Rome* [ 01/11/2021 – 31/10/2024 ]

City: Rome | Country: Italy | Website: [https://phd.uniroma1.it/web/-LIFE-SCIENCE-\\_nD3539\\_EN.aspx](https://phd.uniroma1.it/web/-LIFE-SCIENCE-_nD3539_EN.aspx) | Thesis: Nanoscale-spectroscopy and imaging of protein aggregates

### Tutor in Biochemistry MSc course

*Sapienza University of Rome* [ 01/09/2022 – 30/09/2024 ]

City: Rome | Country: Italy

### Early stage researcher internship

*Italian Institute of Technology* [ 01/02/2021 – 30/10/2021 ]

City: Rome | Country: Italy | Thesis: Infrared spectroscopy of photoactive proteins

### Master Degree in Chemistry (with honours)

*Department of Chemistry, University of Crete* [ 01/10/2018 – 11/12/2020 ]

City: Heraklion | Country: Greece | Thesis: Biomolecular residue analysis in archaeological potsherds by means of UV-vis absorption and fluorescence spectroscopy

### Erasmus+ trainee

*Horizon 2020* [ 01/03/2020 – 30/06/2020 ]

City: Pisa | Country: Italy | Thesis: Analysis of collagen in samples from archaeological bone using analytical pyrolysis

### Graduate Physical Chemistry Lab Assistant

*Department of Chemistry, University of Crete* [ 01/10/2019 – 31/01/2020 ]

City: Heraklion | Country: Greece

### Bachelor Degree in Chemistry (with merit)

*Department of Chemistry, University of Crete* [ 01/10/2014 – 30/09/2018 ]

City: Heraklion | Country: Greece | Thesis: Heterogeneous interactions between sulfur dioxide and volcanic dust

### Erasmus+ trainee

*Horizon 2020* [ 01/07/2017 – 30/09/2017 ]

City: Orleans | Country: France | Thesis: Investigation of temperature dependence of UV-vis cross-sections for several ketones

### Undergraduate General Chemistry Lab Assistant

*Department of Chemistry, University of Crete* [ 01/10/2016 – 31/01/2017 ]

City: Heraklion | Country: Greece

## LANGUAGE SKILLS

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Mother tongue(s): Greek

## Other language(s):

### English

LISTENING C2 READING C2 WRITING C2

SPOKEN PRODUCTION C2 SPOKEN INTERACTION C2

### Italian

LISTENING C1 READING C1 WRITING C1

SPOKEN PRODUCTION C1 SPOKEN INTERACTION C1

## DIGITAL SKILLS

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Microsoft Word / Igor Pro from WaveMetrics / Origin Pro / LaTeX (very good)

## PUBLICATIONS

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[2024]

### Effect of 0.6 THz continuous-wave irradiation on pathologically relevant protein aggregates

Research article, First author

IEEE Transactions on Terahertz Science and Technology

Link: <https://doi.org/10.1109/TTHZ.2024.3435397>

[2024]

### Effect of 0.6 THz irradiation on protein fibrils monitored by mid-infrared nano-spectroscopy

Conference abstract, First author

49th International Conference on Infrared, Millimeter, and Terahertz Waves (IRMMW-THz). IEEE

Link: <https://doi.org/10.1109/IRMMW-THz60956.2024.10697815>

[2023]

### Time-resolved investigation of nanometric cell membrane patches with a mid-infrared laser microscope

Research article, First author

Frontiers in Photonics, section Plasmonics

Link: <https://doi.org/10.3389/fphot.2023.1175033>

[2023]

### A mid-infrared laser microscope for the time-resolved study of light-induced protein conformational changes

Research article

Review of Scientific Instruments

Link: <https://doi.org/10.1063/5.0136676>

[2022]

### Protein secondary structure analysis from mid-infrared nanospectroscopy data on misfolded protein aggregates

Conference abstract, First author

In 47th International Conference on Infrared, Millimeter, and Terahertz Waves (IRMMW-THz). IEEE

Link: [https://drive.google.com/file/d/1qp\\_WXF1EN1I7g1LPCVqICJazuzPJajg2/view?usp=sharing](https://drive.google.com/file/d/1qp_WXF1EN1I7g1LPCVqICJazuzPJajg2/view?usp=sharing)

[2022]

### Mid-infrared nanospectroscopy of individual DNA-binding protein oligomers

Conference abstract, First author

In 47th International Conference on Infrared, Millimeter, and Terahertz Waves (IRMMW-THz). IEEE

Link: <https://doi.org/10.1109/IRMMW-THz50927.2022.9895918>

[2022]

**A quantum cascade laser microscope for time-resolved study of membrane proteins**

47th International Conference on Infrared, Millimeter, and Terahertz Waves (IRMMW-THz). IEEE

Link: <https://doi.org/10.1109/IRMMW-THz50927.2022.9895503>

[2021]

**Infrared nanospectroscopy study of the light-induced conformational changes of Channelrhodopsin**

EPJ Web of Conferences

Link: <https://doi.org/10.1051/epjconf/202125513001>

[2021]

**Conformational changes of an oriented film of photosensitive proteins observed by polarized ATR infrared spectroscopy**

46th International Conference on Infrared, Millimeter, and Terahertz Waves (IRMMW-THz). IEEE

Link: <https://doi.org/10.1109/IRMMW-THz50926.2021.9567067>

[2020]

**Biomolecular residue analysis in archaeological potsherds by means of UV-vis absorption and fluorescence spectroscopy**

Master Thesis. Crete University Press, First author

Link: <https://elocus.lib.uoc.gr/dlib/6/d/6/metadata-dlib-1610368262-210549-8749.tkl>

## CONFERENCES AND SEMINARS

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[ 16/09/2024 – 26/09/2024 ] Elettra synchrotron facility, Trieste, Italy

**XVII School on Synchrotron Radiation “Gilberto Vlaic”**

[ 12/03/2024 – 15/03/2024 ] University Paris-Saclay, Paris, France

**Bruker's workshop on photothermal AFM-IR technology and 1st European meeting on Infrared nanospectro-imaging, EFNS**

[ 01/09/2023 – 08/09/2023 ] Spetses, Greece

**FEBS Advanced Lecture Course in Protein Folding, Aggregation and Compartmentalization**

Poster Presentation

[ 27/08/2023 – 01/09/2023 ] Krakow, Poland

**12th International Conference on Advanced Vibrational Spectroscopy (ICAVS12)**

Poster Presentation

[ 12/06/2023 – 14/06/2023 ] Perugia, Italy

**International Summer School on Vibrational Spectroscopy (VISPEC)**

[ 11/12/2022 – 18/12/2022 ] Sestriere, Italy

**Workshop and Winter School in Biophotonics, Bioelectronics, and Biomechanics**

Poster Presentation

[ 29/08/2022 – 02/09/2022 ] Delft, Netherlands

**47th International Conference on Infrared, Millimeter and Terahertz Waves**

Poster Presentation

[ 04/07/2022 – 08/07/2022 ] Turin, Italy

**International School and Workshop on Plasmonics**

Poster Presentation