

How did my MSCA Fellowship come about?

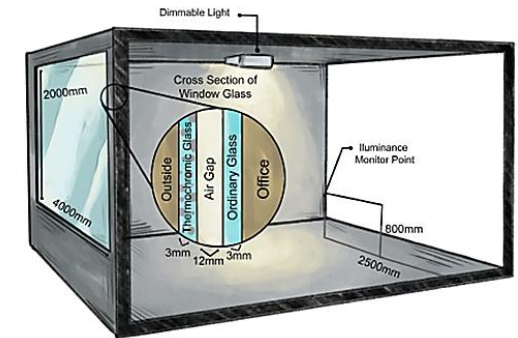
Refet Ali Yalçın

Research engineer, Saint-Gobain Recherche, Paris

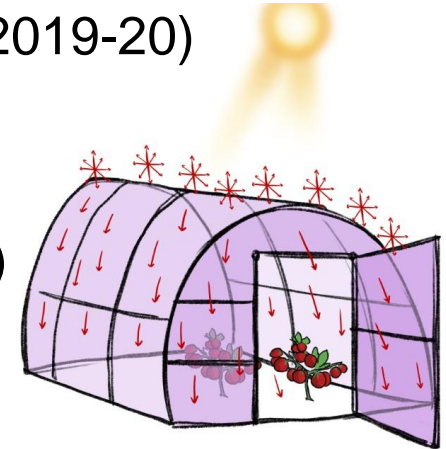
E.mail: refetali@gmail.com

■ My background

- Mechanical engineering
 - B.Sc. (METU, Turkey)
 - M.Sc. (Bogazici University, Turkey)
 - PhD (Bogazici University, Turkey)
- Postdoc (Sabanci University, Turkey)
- Postdoc, PAUSE fellow (Institut Pprime, France, 2019-20)
 - About 2 years on academics at risk fund
- Fulbright visiting scholar (UCLA, USA, 2021)
- MSCA IF fellow (Institut Pprime, France, 2021-22)
- Tried to be a CNRS researcher and failed
- R&D engineer (Saint-Gobain Recherche Paris)



Thermochromic glass
for offices



Fluorescent greenhouse
coating

■ My studies are on

- Harvesting solar thermal energy
- Increasing thermal efficiency of buildings
- Increasing crop production by improving greenhouse coatings

■ When I came to France (2019)

- 1 published article
- 1 submitted patent application
- 2 articles in peer-review

■ Now

Yalçın, Refet A.



Scopus

[University of California, Los Angeles](#), Los Angeles, United States • Scopus ID: 55485652300

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330

Citations by 267 documents

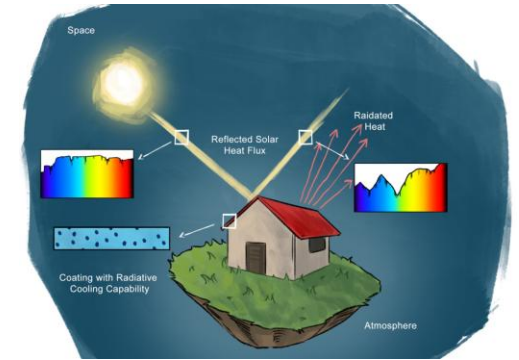
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Documents

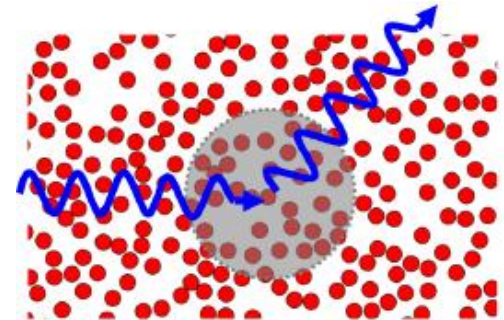
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[h-index](#)

- 21 published journal articles (10 first author)
- 1 invited talk (Optica advanced photonics, 2025)
- 1 published patent
- 1 submitted patent application
- Performed reviews for Nature, Fulbright commission etc.



Colored radiative coolers



Electromagnetic scattering

■ Political

- Signed a petition “We will not be a party to this crime!” with 1128 other academics in Turkey in 2016.
- Prosecutor asked 7.5-year imprisonment (individual cases).
- Came to France after 1st trial in 2019 with my family.

■ Language

- Permanent positions are hard to access.
- My kid’s adaptation problem to kindergarten (affects my mobility).

■ Social

- Limited access to hobbies, friends and family
 - Much more time to study (YAY!)
- Spending less time with the news

■ Future

- Did I enter the postdoc loop?



- Net4Mobility+ document

- [Link: https://www.iaa.ie/wp-content/uploads/2020/06/N4M-2020-IF-Handbook-Final.pdf](https://www.iaa.ie/wp-content/uploads/2020/06/N4M-2020-IF-Handbook-Final.pdf)
- I addressed each (applicable/relevant) points in the document
- I considered weight of each section (page limit)

- **Administrative forms (Part A)**

- **Part B1 Template**

- Section 1. Excellence
- Section 2. Impact
- Section 3. Implementation

Section	Weighting
1. Excellence	50%
2. Impact	30%
3. Implementation	20%

10 page limit

- **Part B2 template**

- Section 4. CV of the Experienced Researcher (5 pages)
- Section 5. Capacities of the participating organisations (1 page for the overview and 1 page for each participating organisation)

- Net4Mobility+ document

Template

- Use the [proposal template](#) provided including the [exact sub-headings](#):
 - It matches [the evaluation template](#) and helps you to put the right information in the right place for the evaluators to find it.
- Use charts, diagrams, text boxes, figures to explain aspects of the project. Do not just use blocks of text.

Feel empathy with reviewers!

Language

- Avoid jargon. The evaluators might not be experts in your research area.
- Explain any abbreviations.
- Use simple clear text, make sure that it 'reads well'.
- Avoid long sentences.
- Avoid too much repetition. Sign-post to other parts of the proposal if necessary.

Feel empathy with reviewers!

Excellence

- Educate the evaluator on the importance of the research being carried out.
- Explain the importance of the research being carried out and how it addresses a challenge/priority at a global/European level.
- The majority of evaluators will not be expert in the specific subject area so write in a style that is accessible to the non-expert using figures/tables/charts/diagrams to illustrate where appropriate.

Feel empathy with reviewers!

- Funding section

4.4 Funding


The PAUSE program (National program for the urgent aid and reception of scientists in exile) supports the researcher by funding %50 of his salary from 28/01/2019 to 28/02/2020.

- Integration section

The integration of the researcher is already good in the institution. The host, Université de Poitiers, has endorsed the Charter & Code on 22 September 2017. In research group there are various type of researchers such as Post-doc, PhD, CNRS researcher, interns from thermal sciences discipline. The researcher introduced himself to the team with a presentation of his past works. Social activities such as barbeque parties, internal meetings are also offered. He has been sent to two different international conferences (GDR TAMARYS, Nantes) and (RAD-19, Athens) to improve his international networking opportunities. Similar opportunities will be offered. Note that the researcher which has Turkish nationality is funded partially by the university of Poitiers and Institut Pprime and also by the program PAUSE that helps researchers that are persecuted in their country.

- I came up with a well-prepared proposal
 - Even if I don't get the fellowship, I can consider other fellowships
 - Around February, I got a detailed feedback for my proposal
 - I was lucky, but if I wasn't I will consider other funds with my proposal after I address weaknesses

Associated with document Ref. Ares(2020)303432 - 17/01/2020

Proposal Evaluation Form						
	EUROPEAN COMMISSION Horizon 2020 - Research and Innovation Framework Programme				Evaluation Summary Report	
Call: H2020-MSCA-IF-2019 Type of action: MSCA-IF-EF-ST Proposal number: 892456 Proposal acronym: COSMAGREEN Duration (months): 24 Proposal title: COating for SMARt GREENhouses Activity: EF-ST-PHY						
N.	Proposer name	Country	Total Cost	%	Grant Requested	%
1	UNIVERSITE DE POITIERS	FR	196,707.84	100.00%	196,707.84	100.00%
Total:			196,707.84		196,707.84	

- Feedback for excellence

Evaluation Summary Report

Evaluation Result

Total score: 97.60% (Threshold: 70/100.00)

Criterion 1 - Excellence

Score: 4.90 (Threshold: 0/5.00 , Weight: 50.00%)

- Quality and credibility of the research/innovation project; level of novelty, appropriate consideration of inter/multidisciplinary and gender aspects
- Quality and appropriateness of the training and of the two way transfer of knowledge between the researcher and the host
- Quality of the supervision and of the integration in the team/institution
- Potential of the researcher to reach or re-enforce professional maturity/independence during the fellowship

Strengths:

- *The project is very well written, original and innovative.*
- *The project is highly interdisciplinary, covering aspects in photonics and biology, from theory to practical implementation.*
- *The project goals are very credible and the concepts are very convincingly presented.*
- *The research methodology is complete as well as appropriate; it presents an interesting approach to the problem.*
- *The transfer of knowledge is convincingly presented both in its content and its practical aspects. The host institution expertise will convincingly complement the researcher knowledge in radiative transfer and photosynthesis. The researcher will bring a new topic in the host group in a credible way and seminar, courses and workshops are scheduled in a clear way, from both sides.*
- *The experience and qualifications of the supervisor in the field of the research project and in training are high.*
- *The training in complementary skills such as patent applications and writing of grant proposals is convincing.*

- Feedback (cont.)

- The hosting arrangements on both scientific and social aspects are convincing to allow a good integration of the researcher, who is already working at the host institution.
- The researcher's access to a leadership in the project has the potential to re-enforce their maturity and independence.
- The contribution of the host in national and international networking opportunities is very well detailed, with involvement of the researcher in collaborative complementary measurements and active participation to meetings and conferences abroad.

Weaknesses

- As a minor weakness, the state of arte is incompletely described for which concerns coatings, including nano-antennas.

- Negative feedbacks from an unsuccessful application

Weaknesses:

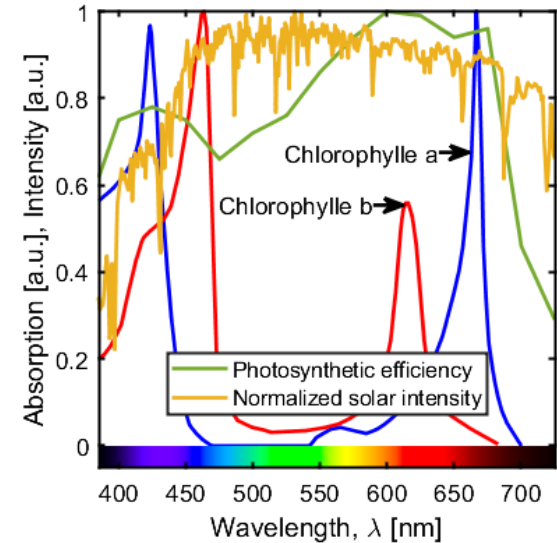
- The effectiveness of the research environment is not convincingly presented because the expertise of the host group and the supervisor regarding plasmonics is not sufficiently elaborated/justified.
- The GLAD deposition conditions to be achieved are difficult to evaluate because the proposed GLAD deposition by sputter deposition has poor angular control.
- The project lacks clear approaches to characterising the materials in terms of uniformity and polydispersity.
- Although the researcher shows commitment to research the previous documented scientific output driven by the research is relatively modest.
- Knowledge transfer is mainly in the direction of the researcher.

How did I find the project?

- Extension of my PhD study
 - Advantages
 - I had publications on the topic
 - I had a patent on the topic
 - If articles are recent, you already show the topic is novel
 - Disadvantages
 - I would repeat myself / novelty could be weak
- Convince reviewers about novelty and impact
 - I clearly and briefly described what I did
 - I did not make things complicated (for old stuff; use attention and space wisely)
 - Emphasize novelty clearly and get into detail only for that section
 - Emphasize what you will contribute to the host and vice-versa

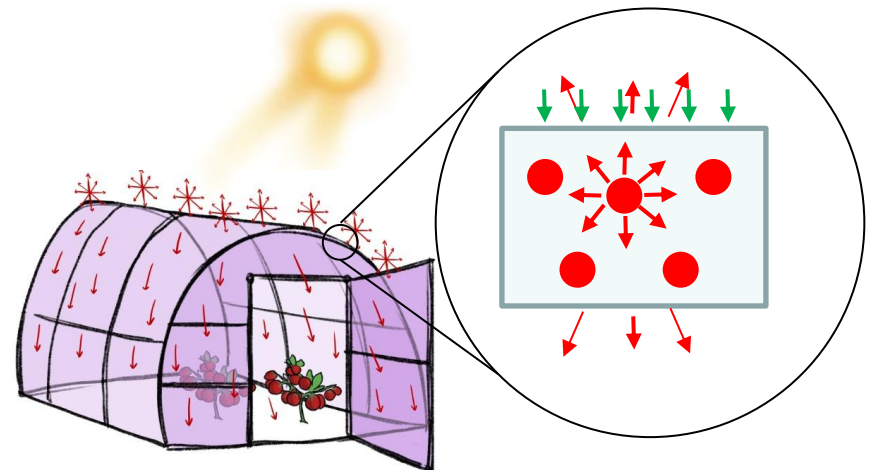
- Objective

- Increase photosynthesis of plants in a greenhouse by:
 - Plants absorb at red and blue
 - Solar radiation is dominant at green
 - Using a coating phosphor which absorbs at green and emits at red spectrum.



- Challenges

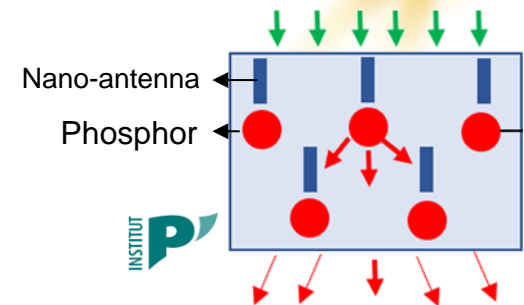
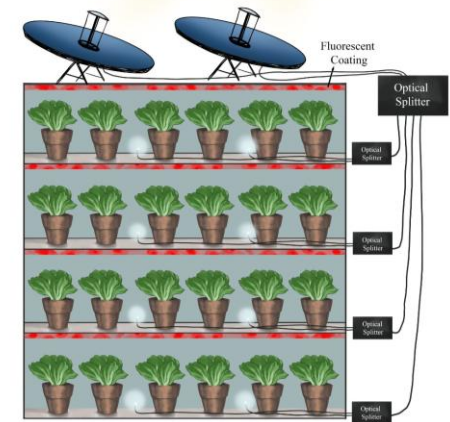
- Phosphors emit light isotropically
 - Half of the reemitted light lost
- This light should be kept



How to find a good project?

- **Daily life / actual project**
 - Try to find a problem from your studies
- **Networking**
 - I wrote to the authors of impactful articles that I knew and benefited from.
- **Be interdisciplinary**
 - For my case it was optics / biology
 - Farther the topics better the results.
- **Gender studies (not applicable for me)**
 - Addressing gender issues brings you bonus points.

Patent No: WO/2020/204858



- Address society (so what?)



- How this fund will shape your career?

2.1 Enhancing the future career prospects of the researcher after the fellowship

The text in red refers to an expected impact listed above

Show how the **skills/experiences improve your employability and career prospects both in and outside academia.**

- Switch to other funds or industry

