הקריה למחקר גרעיני – נגב
אגף משאבי אנוש

מרכז גרעיני, מדעי וטכנולוגי, מצטיין ומוביל

ת.ד. 9001 באר שבע 84190 פקס: 08-6568808 טלפון: 08-6568404

- אישי -

כ״ט אייר תשע״ט
03 יוני 2019

לכבוד:
פרופ׳ גונן אשכנזי
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שלום רב,

הנדון: דר׳ מעיין מתמור– העלאה בדרגה

ועדת דירוג המחקר והפיתוח של הקריה למחקר גרעיני - נגב, שוקלת את קידומה של **דר׳ מעיין מתמור** לדרגה ב׳. דירוג המחקר והפיתוח כולל דרגות מ-ג׳ עד א+ (בהקבלה לדרגות מרצה עד פרופסור מן המניין בדירוג הסגל האקדמי הבכיר). דרגה ב׳ מקבילה לדרגת מרצה בכיר. מעובדת המקודמת לדרגה זו נדרשת היכולת לבצע ולהוביל מחקר ופיתוח מדעי טכנולוגי ברמה המתאימה. בכלל זה יילקחו בחשבון הישגיה העצמאיים במחקר ופיתוח של המועמד, כושרה להגדיר משימות ולהוביל צוותים מקצועיים, ויכולתה לקיים ולפתח קשרים מקצועיים עם מוסדות מחקר ופיתוח בארץ ובחו״ל.

נכיר לך תודה אם תואיל להעריך את התאמתה של **דר׳ מתמור** לקריטריונים אלו. הקריה למחקר גרעיני היא מוסד מחקר ופיתוח שחלק מעבודות המו״פ המבוצעות בו הן פנימיות. על כן נבקשך לבסס את הערכתך בעיקר על איכות פרסומיה של המועמדת ולא על כמותם, ועל היכרותך (אם קיימת) עם עבודתה ויכולותיה.

אנו מודעים לכך שכתיבת חוות הדעת כרוכה בהשקעת זמן ומאמץ מצדך ומודים לך מראש על שיתוף הפעולה.

חוות דעתך תשמר בסודיות ותשמש לצרכי הועדה בלבד.

ב ב ר כ ה ,

ד״ר אוהד לוי
יו״ר ועדת הדרוג

Curriculum Vitae - Maayan Matmor

Personal details-

Address: 16 Mishaol Ethrog St., Omer, 8946500, Israel
Phone: 08-6469513, 050-6239033
Email: ma.matmor@gmail.com
I.D.: 040571507
Date and place of birth: 18.08.1980, Beer-Sheva, Israel

Educational Background-

PhD joint program (2009-2013)

Department of Materials engineering, Ben-Gurion University of the Negev, Beer-Sheva.
Thesis advisor: Prof. Nurit Ashkenasy
Thesis title: "Engineered Inorganic Peptide-Binders as Building Blocks for Construction of Electronic Devices"
Course grade average: 92

M. Sc (2007-2009)

Department of Materials engineering, Ben-Gurion University of the Negev, Beer-Sheva.
Thesis advisor: Prof. Nurit Ashkenasy
Thesis title: "Engineered Inorganic Peptide-Binders as Building Blocks for Construction of Electronic Devices" M.Sc Thesis Grade: 94
Course grade average: 93.4

B. Sc (2003-2007) Materials Engineering

Ben-Gurion University of the Negev, Beer-Sheva.
Final grade average: 87.3
Engineering research project advisor: Prof. Roni Shneck (for Motorola)
"Mechanical Characterization of Led Free Solder-Paste"

Additional Professional Activities-

2015-today

Nuclear research center - Negev, Researcher in the technological division. My work deals with two major subjects, casting and thin films. These studies are supported by various characterization methods, such as, SEM,XPS, AES, DRS, FTIR, electrochemical measurments and others.

2011-2012

Course lecturer, Department of Materials Engineering, Ben Gurion University of the Negev. Course: Introduction to MATLAB
Teaching assistant, Department of Materials Engineering, Ben Gurion University of the Negev. Mechanical Properties Labs guide

2010-2011

Teaching assistant, Department of Civil Engineering, Ben Gurion University of the Negev. Mechanical Properties Labs instructor.

2010

Course lecturer, Department of Civil Engineering, Ben Gurion University of the Negev. Course: Introduction to Chemistry.

2008-2009

Teaching assistant, Department of Civil Engineering, Ben Gurion University of the Negev. Course: Mechanical Properties of Materials and Labs instructor.

2006-2008

Teaching assistant, Department of Materials Engineering, Ben Gurion University of the Negev. Mechanical Properties Labs guide

Scholarships and Awards-

1. **2015-2021 Katzir scholarship, Minstry of Defence**, state of Israel.
2. **2012 Ministry of Science & Technology**, state of Israel, Women Scholarship.
3. **2011 BSF** Prof. R. Rahamimoff Travel Grant For Young Scientist.
4. **2009-2013 Kreitman school Ph.D. scholarship** .
5. **2007-2013 living scholarship – supported by the Department** of Material Engineering of Ben Gurion University.
6. **2009-2013 living scholarship – supported by the my PhD supervisor Prof. Nurit Ashkenasy**.

Publication List-

1. M. Matmor, S. Cohen, G.Rafailov, M.Vaknin, N.Shamir, T.Gouder, S.Zalkind. "Surface characterization of U(AlxSi1-x)3 alloy and its interaction with O2 and H2O, at room temperature" *Journal of Nuclear Materials*, **2018**, 499, 29-37, IF=2.049

2. M. Matmor, George A. Lengyel, W. Seth Horne and Nurit Ashkenasy "Peptide-functionalized semiconductor surface: strong surface electronic effect from minor alterations to backbone composition" 2017, *Physical Chemistry Chemical Physics*, 19, 5709-5714, IF=4.123

3. P. I. Gordiichuk, D. Rimmerman, A. Paul†, D. A. Gautier, A. Gruszka, M. Saller, J. W. de Vries, G.-J. A. H. Wetzelaer, M. Manca, W. Gomulya, **M. Matmor**, E. Gloukhikh, M. Loznik, N. Ashkenasy, P. W. M. Blom, M. Rögner, M. Antonietta Loi, S. Richter, and A. Herrmann " Filling the green gap of a megadalton photosystem i complex by conjugation of organic dyes" *Bioconjugated Chemestry*, **2015**, 27 (1), 36-41, IF=4.513

4. Y. Raz1, B. Rubinov, **M. Matmor**, H. Rapaport, G. Ashkenasy, and Y. Miller " Effects of mutations in de-novo designed synthetic amphiphilic ß-sheet peptides on fibrils self-assembly" *Chem. Commun.*, **2013**, 49, 6561. IF=6.169

5. **M. Matmor** and N. Ashkenasy "Modulating semiconductor surface electronic properties by inorganic peptide-binders sequence design" *J. Am. Chem. Soc.*, **2012** 134, 20403. IF=10.677

6. B. Rubinov, N. Wagner, **M. Matmor**, O. Regev, N. Ashkenasy, and Gonen Ashkenasy "Transient fibril structures facilitating nonenzymatic self-replication" *ACS Nano*, 6, **2012**, 7893. IF=11.42 (This article was highlighted in **Nature Nanotechnology**, IF=27. 27)

7. V. Burbu, **M. Matmor**, N. Ashkenasy, and Gonen Ashkenasy "Self assembly and self replication of β-sheet peptides in prebiotic environment" – *Origin. Life. Evol. Biosph.* 41, **2011**, 563.
IF=2.66

8. A. Asherov, **M. Matmor**, N. Froumin, N. Ashkenasy and Y. Golan "Surface Termination Control in Chemically Deposited PbS films: Aspects of nucleation and growth on gallium terminated GaAs(111)A and arsenic terminated GaAs(111)B" *J. Phys. Chem. C*, 115, **2011**, 16501.
IF=4.805

9. **M. Matmor** and N. Ashkenasy "Peptide directed growth of gold films" *J. Mater. Chem.*, 21, **2011**, 968.
IF=5.97

10. R. Nochomovitz*, M. Amit*, **M. Matmor**, and N. Ashkenasy, "Bioassisted multi-nanoparticle patterning using single-layer peptide templates" *Nanotechnology* 21, **2010**, 145305.
IF=3.979

In preparation-

11. S. Cohen, **M. Matmor**, G. rafialov, M. Vaknin, S. Zalkind "Surface characterization of $U(Al_x, Si_{1-x})_3$ and initial interactions with O_2 and H_2O at elevated temperatures"

12. O. Zamir, M. Matmor, M. Vaknin, M. Minzt and M. Sapir "Aluminum surface passivation for extreme corrosion environment utilizing fluoride based thin-films"

Poster Presentation-

1. Israel Vacuum Society conference – September 9th , 2015 Weitzmann Institute."Surface characterization of $U(Al_x, Si_{1-x})_3$ and initial interactions with O_2 and H_2O"/ S. Cohen, G. rafialov, **M. Matmor**, M. Vaknin, S. Zalkind.
2. ESPMI VII- 28th April- 3rd May, 2013, Weitzmann Institute. "Using peptides as a multi-functional tool for preparation of semiconductor films and controlling their electronic properties"/ **Maayan Matmor**, Nurit Ashkenasy.
3. European Conference on Molecular Electronics – September 7-10, 2011, Barcelona. "Hybrid peptide – inorganic materials for electronic applications" **Maayan Matmor**, Nurit Ashkenasy.
4. The Ilze Katz Institute Day – 20 June, 2011, Ben Gurion University. "Hybrid peptide-inorganic interfaces: Controlling GaAs surface electronic structure by peptide monolayer" / **Maayan Matmor**, Nurit Ashkenasy.
5. Israel Material Engineering Conference – December 13-14, 2010, Tel Aviv University. "Gold mineralization using dual binding peptide template " / **Maayan Matmor**, Nurit Ashkenasy.
6. Nano Israel – November 8-9, 2010, Tel-Aviv. "Engineered peptides as templates for the formation of inorganic structures" / **Maayan Matmor**, Moran Amit, Nurit Ashkenasy.
7. The Ilze Katz Institute Day – 29 March, 2010, Ben Gurion University. "Gold mineralization using dual binding peptide template " / **Maayan Matmor**, Nurit Ashkenasy.

8. Nano Israel - March 30-31, 2009, Jerusalem."Gold mineralization using dual binding peptide template "/ **Maayan Matmor**, Nurit Ashkenasy.
9. Israel Vacuum Society conference – October 15, 2009 Israel Air Force House, Herzliya."Gold mineralization using dual binding peptide template " / **Maayan Matmor**, Nurit Ashkenasy.

Research Skills-

- Preparation and characterization of thin films by RF and Pulsed-DC magnetron sputtering.
- Materials Preparations: Peptides synthesis and characterization: TOF-maldi, HPLC, inorganic nano crystallization.
- Mineralization processes.
- Surface characterization:
  - X-ray photoelectron spectroscopy (XPS).
  - Auger electron spectroscopy (AES).
  - Direct recoiled spectroscopy (DRS).
- Electrical Characterization: Surface photovoltage spectroscopy (SPS).
- Structural analysis:
  - Atomic force microscopy (AFM).
  - Local electrode atom probe (LEAP).
  - Scanning electron microscopy (SEM).
  - Transmission electron microscopy (TEM)