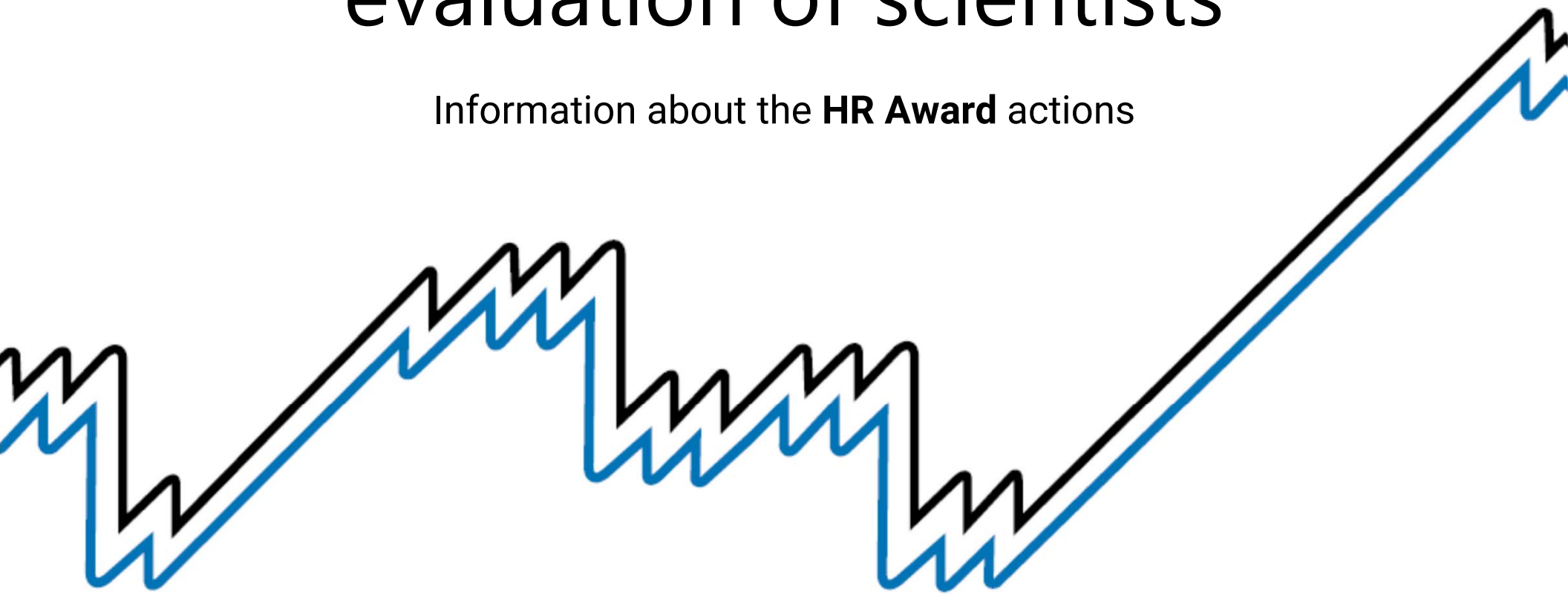
J. Heyrovský Institute of Physical Chemistry

EUROPEAN UNION
European Structural and Investment Funds
Operational Programme Research, Development and Education

MINISTRY OF EDUCATION, YOUTH AND SPORTS

New methodology of evaluation of scientists

Information about the **HR Award** actions



J. Heyrovský Institute of Physical Chemistry

Evaluation process

- All research teams and institutes in the **Czech Academy of Sciences** – 5 year cycle
- Government M17+ - evaluating the institute each 5 years (2020) and monitoring each year
- **Evaluation of individual scientist (“attestation”, qualification audit, responsibility of the vice-director for science)**

J. Heyrovský Institute of Physical Chemistry

Criteria for evaluation

On the basis of these criteria the committee decides on the appropriate salary scale point.

- **V1 research assistant = no PhD**
- **V2 doctoral student**
- **V3 postdoctoral fellow**
- **V4 scientific assistant**
- **V5 scientist**
- **V6 senior scientist**

The criteria for the V1 - V4 scale points are simply defined by obtaining the PhD degree and by duration since obtaining it (<5 years V3, >=5 years V4)

Promotion to the V5 and V6 points needs expert assessment of the scientific performance:

For **V5** **regular publication activity** is essential and also a **principal investigator** role on research grant projects is expected;

For **V6** additionally the scientist should be a **recognized leader** that influences the development of the scientific filed **on the international scale**.

Criteria for evaluation

J. Heyrovský Institute	**DIRECTIVE**	No: **2/2019**
Criteria for the evaluation of scientific work		Date: **12. 6. 2019**

In accordance with the Statutes of the AVCR, the qualification grades and the corresponding salary stages for the academic staff of the research departments shall be determined according to the "internal wage regulation" on the basis of the evaluation (qualification audit) by a dedicated committee considering the following factors:

V1, Research Assistant	Higher education degree (MSc or equivalent)
V2, Early stage researcher (PhD student)	MSc and enrolment in doctoral studies
V3, Postdoctoral Fellow	Less than 5 years since obtaining a PhD (or equivalent)
V4, Associate scientist	5 years or more since obtaining a PhD (or equivalent)
V5, Scientist	PhD (or equivalent), regular publications in impacted journals, investigator of grant or programme projects.
V6, Senior Scientist	As V5 plus a significant international contribution to the development in the field in a leading scientific role.

The staff included in the salary stages V3 to V6, are "academic staff" and the committee shall evaluate their scientific activities with the focus on the following criteria:

Criteria for evaluation

The staff included in the salary stages V3 to V6, are “academic staff” and the committee shall evaluate their scientific activities with the focus on the following criteria:

1) Scientific publications in impacted journals registered in the database "Web of Science".
2) Participation in scientific grant projects.
3) Patents and other proprietary intellectual property.

For the purposes of promotion to the V5 and V6 salary stages, the following factors will also be considered
- Quality and impact of scientific work and its significance for the Department and the Institute
- Teaching activities
- Supervision of Ba, MSc and PhD theses
- Lecturing at conferences and scientific meetings
- International significance of scientific work according to a statement from a foreign expert in promotion to V5 or to V6 from the lower qualification levels.

In evaluating the scientific work, the Attestation Committee shall consider documentation requested from the employee and a written statement by the head of the department (or by a vice-director for science when a head of the department is evaluated). The publication activity of researchers is evaluated on the basis of bibliometric analysis of articles and reviews listed in the ResearcherID system.

J. Heyrovský Institute of Physical Chemistry

Advice from International Advisory Board

1) If people include their Researcher ID, then one can check easily check with one click what the trend is. If you include this question so that people become aware, then **5 years might be better**.

2) A brief explanation why the paper is important. The number (1, 2, or 3) is not so relevant.
   - Fixing a number of publications is difficult to compare as some high-level work sometimes takes much more time and is much more visionary than simply repeating a study at different conditions. **Here a short statement on the importance and impact of the work would be helpful**.

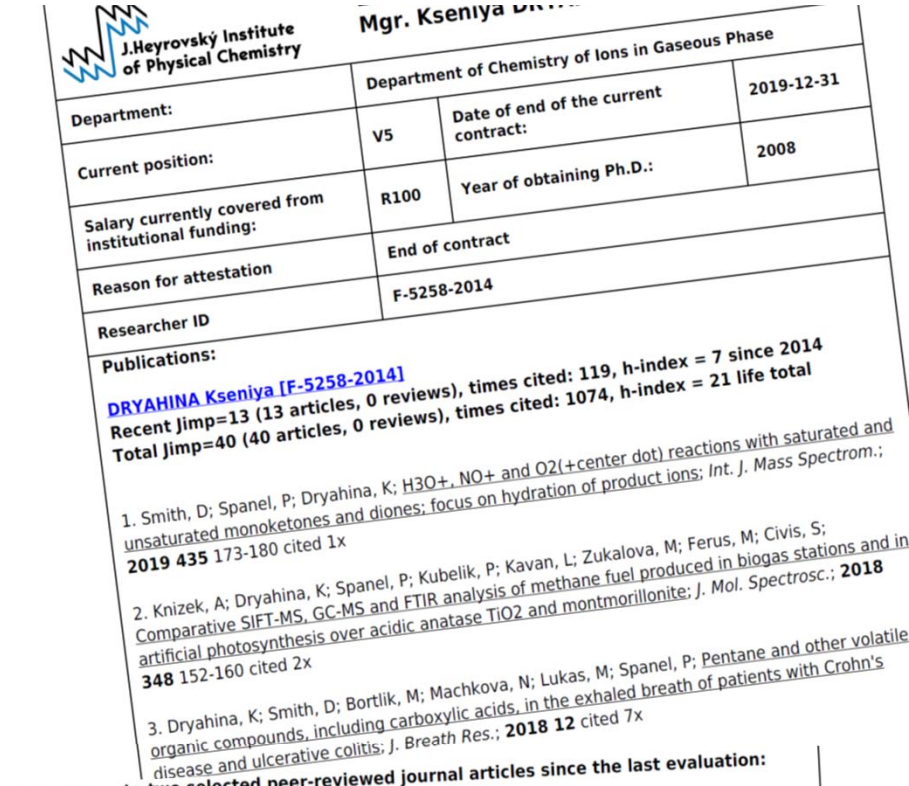
J. Heyrovský Institute of Physical Chemistry

Process

1) The publication record and citation analysis (5 y) is compiled using **Researcher ID**
2) A form is generated with essential information about the current status
3) The researcher fills in an on-line questionnaire, attaches a CV and 2 best articles of their choice **including a brief statement**
4) The head of department writes

Assessment of scientific work since the last evaluation

Recommendations and goals for further professional development.



J.Heyrovský Institute of Physical Chemistry

Mgr. Kseniya DR...

Department:	Department of Chemistry of Ions in Gaseous Phase		
Current position:	V5	Date of end of the current contract:	2019-12-31
Salary currently covered from institutional funding:	R100	Year of obtaining Ph.D.:	2008
Reason for attestation	End of contract		
Researcher ID	F-5258-2014		

Publications:

DRYAHINA Kseniya [F-5258-2014]

Recent Jimp=13 (13 articles, 0 reviews), times cited: 119, h-index = 7 since 2014
Total Jimp=40 (40 articles, 0 reviews), times cited: 1074, h-index = 21 life total

1. Smith, D; Spanel, P; Dryahina, K; H3O+, NO+ and O2(+center dot) reactions with saturated and unsaturated monoketones and diones; focus on hydration of product ions; *Int. J. Mass Spectrom.*; **2019 435** 173-180 cited 1x

2. Knizek, A; Dryahina, K; Spanel, P; Kubelik, P; Kavan, L; Zukalova, M; Ferus, M; Civis, S; Comparative SIFT-MS, GC-MS and FTIR analysis of methane fuel produced in biogas stations and in artificial photosynthesis over acidic anatase TiO2 and montmorillonite; *J. Mol. Spectrosc.*; **2018 348** 152-160 cited 2x

3. Dryahina, K; Smith, D; Bortlik, M; Machkova, N; Lukas, M; Spanel, P; Pentane and other volatile organic compounds, including carboxylic acids, in the exhaled breath of patients with Crohn's disease and ulcerative colitis; *J. Breath Res.*; **2018 12** cited 7x

References to two selected peer-reviewed journal articles since the last evaluation:

K. Dryahina, D. Smith, M. Bortlik, N. Machkova, M. Lukas, P. Spanel. Pentane and other volatile organic compounds, including carboxylic acids, in the exhaled breath of patients with Crohn's disease and ulcerative colitis. J. Breath Res. 2018, 12.

The article is devoted to the differences in concentrations of volatile compounds in the breath of IBD patient with varying degrees of disease activity. I led all steps of this study from the beginning to the end starting with experimental design in collaboration with clinicians, selecting of monitored compounds and finally data processing. I also was involved in preparation for publication in collaboration with my scientific colleagues.

J. Heyrovský Institute of Physical Chemistry

Establishing a panel of international experts for evaluation of V5 and V6 scientists

- Each V5 and V6 **promotion** is refereed by at least one foreign expert with knowledge in the field. The experts (who must not be in any conflict of interest like joint publications) review the material (the form with citation analysis, two publications + CV) and answer three questions:

1) How do you rate the scientific work of the individual scientist on the scale of quality
   (1 - world-leading, 2 - internationally excellent , 3 - internationally recognized, 4- nationally recognized, 5-substandard)
2) Characterize the scientific contribution of the individual scientist in terms of originality, significance and rigor. (V6: Is he a recognized leader that influences the development of the scientific filed on the international scale?)
3) What would you recommend the further direction for carrier development (after promotion?)

J. Heyrovský Institute of Physical Chemistry

Results

19 V1 – 1 promoted to V3, 3 promoted to V4

40 V2 – 7 promoted to V3

24 V3 – 4 promoted to V4

9 V4 – 2 promoted to V5 (including 1 young scientist position)

11 V5 – 1 promoted to V6

5 V6 – (including 1 ERA Chair and 1 J.E. Purkyne fellow)

Total 108 scientists evaluated, 18 promoted

J. Heyrovský Institute of Physical Chemistry

Questions

- **ORCID** as an alternative to **ResearcherID**?
- Further separate the decisions of funding and contracts from evaluation (evaluation committee does not have competence for this)?
- Introduce annual (brief) evaluation by HOD?

J. Heyrovský Institute of Physical Chemistry

EUROPEAN UNION
European Structural and Investment Funds
Operational Programme Research,
Development and Education

MINISTRY OF EDUCATION, YOUTH AND SPORTS

EVROPSKÁ UNIE
Evropské strukturální a investiční fondy
Operační program Výzkum, vývoj a vzdělávání

MINISTERSTVO ŠKOLSTVÍ, MLÁDEŽE A TĚLOVÝCHOVY

Rozvoj kapacit ÚFCH JH, v. v. i. pro výzkum a vývoj
CZ.02.2.69/0.0/0.0/16_028/0006251