

CONSULTING AGREEMENT

THIS CONSULTING AGREEMENT, having an effective date of August 30th 2016, is entered into between J. Heyrovský Institute of Physical Chemistry of the Academy science of Czech Republic Institute having a place of business at Dolejškova 2155/3, 182 23 Prague 8, Czech Republic ("CONSULTANT") and Eaton Corporation, having a place of business at W126, N7250 Flint Dr, Menomonee Falls 53051, and 1000 Cherrington Pkwy, Moon Twp PA 15108, United States ("EATON").

1. **Status** - EATON retains CONSULTANT and CONSULTANT agrees to perform for EATON as an independent contractor, a consultant, inventor, and specialist (but not as an employee of EATON) various duties and services relating to "Proof of concept assessment: swarm-derived electron attachment cross section for $c-C_4F_8$ " (collectively the "DUTY" or "DUTIES") as set forth in attached Appendix A, which is incorporated by reference into this Agreement, and as individually contracted for by a separately issued Purchase Order No.0011-40739, which references this Agreement.

2. **Duties** - CONSULTANT must execute with due care and diligence specific DUTY assignments received from any EATON administrator(s) designated on said Purchase Order. CONSULTANT may not delegate or subcontract any of the DUTIES without the express written consent of EATON. CONSULTANT must secure from any of its employees, delegates, or agents who will be performing any Duties under this Agreement an agreement to be bound by the terms and conditions of this Agreement substantially as set forth in the attached Appendix B, which is incorporated by reference into this Agreement. CONSULTANT and EATON will agree upon the specific DUTIES to be performed by CONSULTANT in accordance with the provisions, specifications, conditions, warranties and agreements set forth in this Agreement, Appendix A, and the Purchase Order.

3. **Work Product** - All ideas, designs, memoranda, reports, know-how, data, discoveries, inventions, innovations, and improvements of every kind and description (collectively the "WORK PRODUCT"), whether patentable or unpatentable, made, conceived, developed or reduced to practice by or for CONSULTANT in the performance of the DUTIES must be promptly communicated to, and is the exclusive property of, EATON. Any work of authorship made by or for the CONSULTANT in the performance of its duties under this Agreement is a work for hire and, upon creation and fixation in any tangible medium of expression, becomes the exclusive property of EATON. CONSULTANT, its assigns, employees, and delegates will perform all lawful acts requested by EATON:
 - a. to perfect EATON's title in the WORK PRODUCT, and
 - b. where applicable, to enable EATON or its nominee to obtain and maintain copyright, mask work, patent, or other legal protection of the WORK PRODUCT anywhere in the world.

Upon termination of this Agreement, any WORK PRODUCT materials not already in possession of EATON including all photocopies, duplicates, and summaries must be immediately delivered by CONSULTANT to EATON at no cost to EATON. Upon EATON's request at any time, CONSULTANT agrees to testify anywhere on behalf of EATON in any litigation, proceeding, or action that may arise during or after the term of this Agreement which relates to DUTIES performed by CONSULTANT under this Agreement. EATON will reimburse CONSULTANT for travel and subsistence expenses and EATON will pay to CONSULTANT a reasonable per hour or per diem fee, which in no event may exceed the per diem or per hour fee paid to CONSULTANT under this Agreement.

4. **Confidential Relationship -**

(a) EATON may from time to time communicate to CONSULTANT certain proprietary business and technical information to enable CONSULTANT to effectively perform the DUTIES under this Agreement ("Confidential Information"). CONSULTANT must treat all such Confidential Information received from EATON, including information of third parties, as confidential, whether or not so identified, and must not disclose such Confidential Information to any third party or publish such Confidential Information without the prior written consent of EATON. CONSULTANT must limit the use of Confidential Information to the extent necessary to perform the DUTIES under this Agreement. The obligations of this Paragraph do not apply, however, to:

- i. information already in the possession of CONSULTANT not acquired from EATON; or
- ii. information already in the public domain or subsequently entering the public domain through no breach of confidence by CONSULTANT.

(b) CONSULTANT must not disclose to third parties or publish any WORK PRODUCT, recommendation, conclusion, or result of the DUTIES under this Agreement or the existence or the subject matter of this Agreement without the prior written consent of EATON.

(c) To the extent that CONSULTANT is under any current or future legal obligation to third parties, CONSULTANT must comply with such legal obligations while performing its Duties under this Agreement.

(d) CONSULTANT acknowledges and agrees that publication or disclosure to third parties of any WORK PRODUCT or Confidential Information learned during performance of its DUTIES under this Agreement will give rise to irreparable injury to EATON or any third party owner of that information, which is inadequately compensable in damages, and EATON may seek injunctive relief against the breach or threatened breach of the confidentiality undertakings of this Section 4. CONSULTANT's obligations under this Section 4 shall survive the termination or expiration of this Agreement indefinitely.

(e) CONSULTANT and EATON acknowledge that they entered into a certain Confidentiality Agreement date June 8th 2015, which governs information exchanges between the parties relating to, among other things, numerical arc modeling, and agree that this Section 4 does not replace or supersede this Confidentiality Agreement. In case of any conflict between the Confidentiality Agreement and this Agreement, the terms and conditions of this Agreement shall control.

5. **Fees -**

(a) EATON will pay CONSULTANT for services rendered in accordance with this Agreement a fee as set forth in EATON's Purchase Order. This fee is specified in Appendix A of this document.

(b) In addition, EATON will reimburse CONSULTANT for all reasonable travel and lodging expenses approved in advance by EATON and which CONSULTANT incurs at EATON's request in performance of the DUTIES, and for any other disbursements by CONSULTANT that EATON may authorize in advance.

(c) EATON has no obligation to pay or provide benefits to CONSULTANT except as expressly set forth in this Agreement.

6. **Payment -** CONSULTANT shall submit statements for DUTIES performed and EATON

will reimburse CONSULTANT upon presentation of those statements for the preceding period of services according to a schedule set forth on EATON's Purchase Order and specified in Appendix A of this document. After presentation of statements of DUTIES to EATON, the CONSULTANT will invoice the fees by sending invoice to the address below. Payments under this Agreement are due 30 days after the receipt of a correct invoice by EATON .

Billing Ref. #: Purchase Order No. 0011-40739	
Original Invoices should be mailed to:	Information copy to:
NA – Financial Services Center –	Chris Drew
0011 P.O. Box 818031	Buyer
Cleveland, OH 44181-8031	Corporate Research and Technology
Phone #: [REDACTED]	W126, N7250 Flint Dr Menomonee Falls 53051
	[REDACTED]

EATON will pay CONSULTANT only for assigned DUTIES. The DUTIES assigned to CONSULTANT are in the sole discretion of EATON and there is no minimum fee due CONSULTANT from EATON.

7. CONSULTANT'S Background Technology - CONSULTANT agrees:

(a) to advise EATON in writing in the event that it elects to utilize in its work under this Agreement any information or concept that:

- i. is covered by a patent or pending patent application owned or controlled by CONSULTANT, or known to CONSULTANT, or
- ii. has previously been reduced to practice by CONSULTANT;

(b) to allow EATON to fully utilize any information or concepts provided under this Agreement without reimbursement to CONSULTANT, except as the information or concepts may be protected by valid patents or patent applications owned or controlled by CONSULTANT and filed prior to the date of this Agreement;

(c) with respect to such patents or patent applications discussed in Section 7(b) above, to grant, upon request by EATON, a non-exclusive license to EATON under the patents or patent applications, for the entire life of such patents and the patents resulting from such patent applications, at a royalty rate not to exceed 3% of the net manufacturer's selling price of products covered by the patents or patent applications, provided, however, that royalty payments based upon patent applications cannot continue for longer than 2 years;

(d) further with respect to such patents or patent applications discussed in Section 7(b) above, not to sell or convey any of those patents or patent applications to any third party without first offering to make the sale or conveyance with such third party only on condition that the sale or conveyance be subject to

EATON's License Rights provided in Section 7(c) above if EATON has not previously released its License Rights; and,

(e) to advise EATON in writing of all information or concepts relating to the DUTIES which CONSULTANT cannot or will not allow EATON to utilize as provided in Section 7(c) above.

8. **Term and Termination** - The term of this Agreement commences on the day and year first above written and continues until either party notifies the other of its intent to terminate the Agreement upon 30 days written notice.

The obligations contained in Sections 3, 4 and 7 continue to survive and bind the parties upon termination of this Agreement.

9. **Notice** - All notices under this Agreement are deemed to have been given on the date sent by first class mail, postage prepaid.

10. **Existing Agreements and Patents** - CONSULTANT must promptly and fully disclose to EATON during the term of this Agreement all existing agreements to which CONSULTANT is a party, which would affect in any way its services to EATON, and any patents or patent applications owned or controlled by or known to CONSULTANT, which would be infringed by or affect the performance of its services to EATON.

11. **Entire Agreement** - This Agreement: (a) is the complete agreement of the parties concerning the subject matter of this Agreement and supersedes any prior understandings, negotiations, and agreements between the Parties relating thereto and (b) may not be amended or in any manner modified except by a written instrument signed by authorized representatives of both parties.

12. **Assignment** - EATON has the right to assign this Agreement to any successor of interest of the business group or portion of the business group that is utilizing the CONSULTANT's services under this Agreement. The services to be rendered by CONSULTANT are personal in nature and may not be assigned by CONSULTANT without the prior written consent of EATON.

13. **Warranty** - CONSULTANT warrants that its services do not violate or infringe upon any third party patent, trade secret, or copyright.

14. **Indemnification** - CONSULTANT indemnifies EATON for all claims, expenses, and losses to any legal entity or damage to any property caused by any negligent or intentional act or omission of CONSULTANT or by the failure of CONSULTANT to perform any of its Duties under this Agreement.

15. **Government Contract Services** - If CONSULTANT is requested by EATON to perform services in connection with a Government contract, any applicable provisions of the Government contracts are incorporated into and made a part of this Agreement and will be made available to CONSULTANT by EATON on request.

16. **Eaton Policies and Compliance with Law** - CONSULTANT agrees that it will comply with all applicable local, state, federal and international laws and regulations in connection with its services under this Agreement. CONSULTANT further agrees that it will comply with Eaton's Code of Ethics, available at www.eaton.com, as applicable to CONSULTANT'S services under this Agreement.

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EATON CORPORATION

CONSULTANT

By: 

Name: Stamenkovic, Igor

Title: Global Technology Manager

Date: 8/21/16


prof. RNDr. Zdeněk Samec, DrSc.

Name: _____

Title: DIRECTOR

Date: 01-09-2016

Proof-of-concept assessment: swarm-derived electron attachment cross section for $c\text{-C}_4\text{F}_8$

Juraj Fedor, J. Heyrovsky Institute of Physical Chemistry, Czech Academy of Sciences

Scope

During the proof-of-concept measurements of $c\text{-C}_4\text{F}_8$ it turned out that the measured beam cross sections yield critical-field strength that is much lower than the established one. The most probable reason is an occurrence of three-body attachment at higher gas pressures. Indeed, the measured beam attachment cross sections in the energy range 0.1 – 1 eV are much lower than the (swarm-derived) cross sections recommended by Christophorou [1]. The scope of the present project is to measure the electron attachment rates of $c\text{-C}_4\text{F}_8$ with a pulsed Townsend technique, derive the attachment cross section by scaling the beam cross section in order to fit the rates, and compare the resulting cross section with that of Christophorou.

Organization

Measurements of attachment rates will be done at Siedlce University in Poland in the group of Prof. J. Kopyra on the setup constructed by her [2]. One person from JHI will visit Siedlce for two weeks, bring there the gas samples (leftovers from the previous project), and do the measurements.

Time schedule

Measurements are planned for the first two weeks of October, additional two weeks will be devoted to the data evaluation and reporting. The completion date is thus estimated to October 28th 2017.

Costs (in CZK)

Payment to Siedlce University (allocation of acquisition time + training)	15k
Personnel cost	25k
Travel costs	35k
Overhead (30% of above)	22.5k
Total	97.5k

[1] L. G. Christophorou, J. K. Olthoff, Electron Interactions with $c\text{-C}_4\text{F}_8$, *J. Phys. Chem. Ref. Data* 30 (2001) 449

[2] J. Kopyra, J. Wnorowska, M. Forys, I. Szamrej, A New Apparatus for Measuring Rate Constants and Activation Energies of Thermal Electron Capture Processes in the Gas Phase, *Int. J. Mass. Spectrom* 268 (2007) 60

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APPENDIX B

I, _____, have read the Consultant Agreement dated _____ between Eaton Corporation ("EATON") and _____ ("CONSULTANT") and agree to be bound by the terms and conditions of such Consulting Agreement in consideration for CONSULTANT delegating to me DUTIES to be performed for EATON on behalf of CONSULTANT. I specifically acknowledge the DUTIES set forth in Paragraphs 2, 3, 4 and 16 of the Consulting Agreement to assign and communicate to EATON all WORK PRODUCT(S) (as defined in the Consulting Agreement) and to hold EATON information confidential.

Copy to:
Eaton Innovation Center
Attention: IP Law Group
B26201 Northwestern Highway
Southfield, Michigan 48076

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Eaton Corporate Research and Technology
W126N7250 Flint Drive
Menomonee Falls, WI 53051



Powering Business Worldwide

Purchase Order 0011-40739

DATE **8/31/16**

TO J HEYROVSKY INSTITUTE OF PHYSICAL CHEMISTRY OF THE AS CR V V I DOLEJSKOVA 2155 3 PRAGUE 182 23	30177400	SHIP TO Eaton Corporation 1000 Cherrington Pkwy Moon Township, PA 15108 PHONE [REDACTED] SHIP VIA OTHER SEE NOTE BELOW F.O.B . ORIGIN	BILL TO NA Financial Services Center 0011 PO Box 818031 Cleveland, OH 44181-8031
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P.O. NUMBER	ORDER DATE	BUYER	BUYER PHONE	PAY TERMS	TAXABLE	REQUESTOR	CUR
0011-40739	8/30/16	Drew, Chris	[REDACTED]	NET 30	N	Yu, Li	CZK

AGREEMENT TERMS

1. This purchase order is being issued, acknowledged and accepted in accordance with the following Eaton terms <http://www.eaton.com/EatonCom/OurCompany/DoingBusiness/SellingtoUs/POTerms-Services-International/index.htm> and as set forth in the attached Consulting Agreement, which is hereby incorporated into this purchase order. In the event of any conflict between the Consulting Agreement terms and any of the Eaton terms, the Consulting Agreement terms supersede the standard Eaton PO terms.
2. Enclose Packing slips with all shipments showing Purchase Order Number, Description, Part Number and Quantity.
3. Order is not to be filled at prices higher then on Purchase Order without written approval of Buyer.
4. Execute Purchase Order and return to Buyer promptly.

***** PURCHASE ORDER ACKNOWLEDGEMENT *****

Signature [REDACTED] Date **01-09-2016**

Seq	Description	Item Number	Quantity	Unit Price	Net Amount	Due Date
1	Proof-of-concept assessment: swarm derived electron attachment cross section for C-C4F8		97,500.00 TOTAL COST	1.00	97,500.00	10/31/2016

Total
97,500.00

Authorized By [REDACTED]

Date: **8/31/16**