IEEE Montreal Section

Expense Claim/Budget Request Form

Claimant's Full Name: O. LIBOIRON-LADOUCEUR
Address: 3480 UNIVERSITY ST.
MONTREAL QC
Postal Code: H3A 2A7
Phone: 514-398-6901
email: oddlo@ieee.org

Event Description: Technical Seminars (2)
Event Date: June 17th & 24th
Speaker: Prof. WOLKOW / Prof. CUK
Chapter or Affinity: PH038
L31 form submitted? Yes
Pay to the order of: O. LIBOIRON-LADOUCEUR

	Expense/Budget Description	Expense Date	Expense Amount	Expense Currency	Exchange Rate	Expense CAD
1	Beignes et Cafe	6/17	48.69	CAD	—	48.69
2	" " "	6/27	48.69	CAD	—	48.69
3						
4						
5						
6						
7						
8						
9						
10						
11						
12						
					Total Expenses	97.38
					Personal Portion	—
					Minus Cash Advances	—
					Total Reimbursement	97.38

Claimant Signature

July 2 2014
Request Date

Chapter/Affinity Signature

Section Signature

Impotant Notes:

1- This form is to be used for claiming expenses and also requests for budget/cash.
2- Consult expense guidelines on the reverse of this page.
3- All the original receipts should be attached on A4 papers and submitted as well.
4- Debit Card and Credit Card receipts are not acceptable as proof of expense.
5- Please note that three different people should sign above.

Check Number	
Check Date	

MeetingReport was successfully created.

The Role of Fast Charge Dynamics in Heterogeneous Catalysis by Transient Spectroscopy

Title	The Role of Fast Charge Dynamics in Heterogeneous Catalysis by Transient Spectroscopy
Event Category	Technical
Event Sub-category	Not Available
Description	The ability to resolve the individual steps of a heterogeneous chemical reaction using rates determined directly by transient spectroscopy would inform theory and the design artificial photosynthetic systems. This talk will discuss how surface potential differentiates the kinetics of the first hole transfer in the water oxidation reaction from the subsequent steps in a model system, the n-SrTiO3/water interface of a photo-electrochemical cell. The shape and magnitude of the activation barrier for the suggested reaction h+ + OH- OH* is found, along with a potential for the Nernstian equilibrium of OH-/OH* that is in rough agreement with gas phase photoemission studies. The talk will also discuss the transient spectroscopy of a more general type of artificial photosynthetic device, where hole injection from a photodiode into a catalyst over-layer initiates the reaction. This configuration allows one to investigate individual hole transfers of the water oxidation reaction in a range catalytic materials and with a tunable device that mimics applicable artificial photosynthetic systems.
Keywords	Spectroscopy, photosynthesis
Guest Attendance	19
IEEE Member Attendance	4
Start Time	2014-06-27 15:00:00
End Time	2014-06-27 16:15:00
Time Zone	Canada/Eastern

Location

Region	7
Section	MONTREAL
OrganizationalUnit	AP03/MTT17/PHO36
City	Montreal
State/Province	Quebec
Country	Canada

1st Speaker

Topic	The Role of Fast Charge Dynamics in Heterogeneous Catalysis by Transient Spectroscopy

Prefix	Prof.
First Name	Tanja
Last Name	Cuk
Display Name	Prof. Tanja Cuk
City	Berkeley
Country	United States
State/Province	California
E-Mail Address	tanjacuk@berkeley.edu
Organization	Department of Chemistry, University of California

Submission Info

Created On	2014-07-02 18:45:55 UTC
Submitter	ODILE LIBOIRON-LADOUCEUR
Submitter Email	odile.liboiron-ladouceur@mcgill.ca

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MeetingReport was successfully updated.

Title	**Bulding Atom-Scale Circuitry**
Event Category	Technical
Event Sub-category	Not Available
Description	Quantum dots are small entities, typically consisting of just a few thousands atoms, that in some ways act like a single atom. The constituent atoms in a dot coalesce their electronic properties to exhibit fairly simple and potentially very useful properties. It turns out that collectives of dots exhibit joint electronic properties of yet more interest. Unfortunately, though extremely small, the still considerable size of typical quantum dots puts a limit on how close multiple dots can be placed, and that in turn limits how strong the coupling between dots can be. Because inter-dot coupling is weak, properties of interest are only manifest at very low temperatures (milliKelvin). In this work the ultimate small quantum dot is described – we replace an “artificial atom” with a true atom - with great benefit. It is demonstrated that the zero-dimensional character of the silicon atom dangling bond (DB) state allows controlled formation and occupation of a new form of quantum dot assemblies - at room temperature. Coulomb repulsion causes DBs separated by less than ~2 nm to experience reduced localized charge. The unoccupied states so created allow a previously unobserved electron tunnel-coupling of DBs, evidenced by a pronounced change in the time-averaged view recorded by scanning tunneling microscopy. It is shown that fabrication geometry determines net electron occupation and tunnel-coupling strength within multi-DB ensembles and moreover that electrostatic separation of degenerate states allows controlled electron occupation within an ensemble. Some speculation on the viability of a new “atomic electronics” based upon these results will be offered. As new technologies require new fabrication and analytical tools, a few words about robust, readily repairable, single atom tips will be offered too. This tip may be an ideal scanned probe fabrication tool. The same tip is an exquisite electron source – it exhibits 4x greater coherence than previous point sources. The same tip is evidently the best known He+ and Ne+ ion source also. It will enable a commercial critical dimension Ne+ Helium ion microscope and it may be the source in a non-staining ion machining tool.
Keywords	Quantum dot, atomic electronics
Guest Attendance	15
IEEE Member Attendance	4
Invite Students	true
Start Time	2014-06-17 14:00:00
End Time	2014-06-17 15:15:00
Time Zone	Canada/Eastern

Location

Region	7
Section	MONTREAL
OrganizationalUnit	AP03/MTT17/PHO36
City	Montreal
State/Province	Quebec
Country	Canada

1st Speaker

Topic	Building Atom-Scale Circuitry
Prefix	Prof.
First Name	Robert
Middle Name	A.
Last Name	Wolkow
Display Name	Prof. Robert A. Wolkow
City	Edmonton
Country	Canada
State/Province	Quebec
E-Mail Address	rwolkow@ualberta.ca
Organization	University of Alberta

Submission Info

Created On	2014-07-02 18:31:53 UTC
Submitter	ODILE LIBOIRON-LADOUCEUR
Submitter Email	odile.liboiron-ladouceur@mcgill.ca

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Prof. WOLKOW
SEMINAR

Tim Hortons #2593
674 Rue Sherbrooke Ouest
Montreal, H3A 0B2
TPS # 1452 79 741 RT 0001
TVQ # 1205242178 TQ

Pour Emporter
Commande #
018365

2 12 Beignes	14,96
2 10 Tins Café	20,38
Sous-Total	44,36
TPS	1,47
TVQ	2,86
Total HST	4,33
Total	**48,69**
Visa No d'autoris=067973	48,69

2014/06/17 13:22:31
Pér. # 1 Périph. # 1 Trans # 528365

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servir aujourd'hui!
Merci de votre visite!
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Merci. Au plaisir de vous revoir!

TPS: 1,47 $ TVQ: 2,86 $
Total : 48,69 $
PAIEMENT REÇU

2014-06-17 13:13:20 MEV:14673702-10318696
TIM HORTONS
674 RUE SHERBROOKE OUEST
674, RUE SHERBROOKE O MONTREAL

Prof. Cuk SEMINAR

Tim Hortons #2593
674 Rue Sherbrooke Ouest
Montreal, H3A 0B2
TPS # 1452 79 741 RT 0001
TVQ # 1205242178 TQ

Pour Emporter
Commande #
023584

1 10 Tins Café	14,69
1 10 Tins Café	14,69
1 12 Beignes	7,49
1 12 Beignes	7,49
Sous-Total	44,36
TPS	1,47
TVQ	2,86
Total HST	4,33
Total	**48,69**
Visa No d'autoris=013155	48,69

2014/06/27 14:20:47
Pér. # 2 Périph. # 2 Trans # 963584

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TPS: 1.47 $ TVQ: 2.86 $
Total : 48.69 $
PAIEMENT REÇU

2014-06-27 14:40:54 MEV:12781901-10956263
TIM HORTONS
674 RUE SHERBROOKE OUEST
674, RUE SHERBROOKE O MONTREAL