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IMAPS Viking Chapter at ARC June 20, 2017

**ARC Lab Tour and Dellwood Country Club Dinner with 3D Chip Presentation
Optional Early Bird Golf**

Please RSVP to: Any questions, Call ARC at 651 789 9000 ask for Matt or Judy
mdugas@arcnano.com; hoffmeyr@us.ibm.com; jacob@ferrian.com

A facilities tour, followed by a great presentation and dinner at Dellwood Country Club awaits you on **Tuesday June 20, 2017**. We hope you can join us!

Optional Early Golf **10 am to 3PM**
9 holes: \$45. 18 holes: \$60 w/Cart **Shuttle Service from Course to ARC and back**

Meeting Agenda	ARC Lab Tour	2:00 – 4:30 PM
	Travel to Dellwood Country Club	4:00 – 4:15 PM
	Dinner at Dellwood	4:30 – 5:00 PM
	3D Chip Packaging Presentation	5:00 – 5:30 PM
	Next Meeting Discussion	5:30 – 5:45 Adjourn

Please RSVP to: mdugas@arcnano.com; hoffmeyr@us.ibm.com; jacob@ferrian.com
Any questions, Call ARC at 651 789 9000

All participants are responsible for their own food and/or golf bill. Menu w/ Table Service Format.

ARC will donate \$10 per attendee to the IMAPS Viking Chapter.

Dellwood CC is known for its great food and drink selection. Our room will have adjacent outdoor patio deck access with stunning views.

ARC is a leader in advanced packaging of infra-red focal plane array, high power laser diodes, MEMs and related advanced packaging solutions. In addition to Wafer Scale and Thin Film Device operations, ARC also has Ultra Precision Machined parts operations as well as full failure analysis and analytical capability. The ARC facility tour will be an absolute treat for anyone interested in high technology equipment and manufacturing.

A Clean Room tour will be offered for those who want to “bunny suit up”.

Nota Bene- for those who cannot come to ARC, you are welcome to come to the presentation and dinner.

ARC
4459 White Bear Parkway
White Bear Lake, MN 55110-
651 789 9000
(Interstate 35E and Highway 96)

Dellwood Country Club
29 East Highway 96
Dellwood, MN 55110
651 426 3218

MEMS Fabricated Ion Spectrometer Utilizing 3D Chip Stacking Integration for Low Density Space-Based Plasma Applications

Earl Scime, Head of Physics WVU

Matt Dugas, CEO ARC

Steve Ellison, EVP ARC

3D Stacking of Single Chip Ion Spectrometers

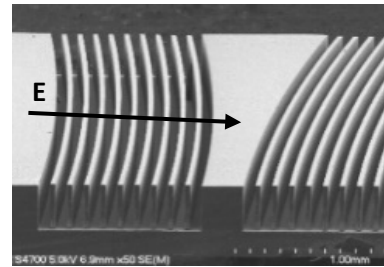
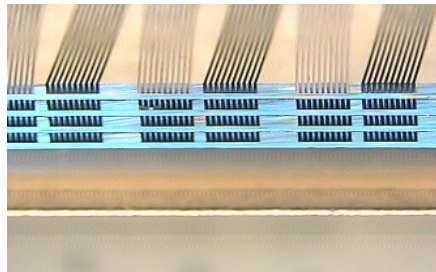


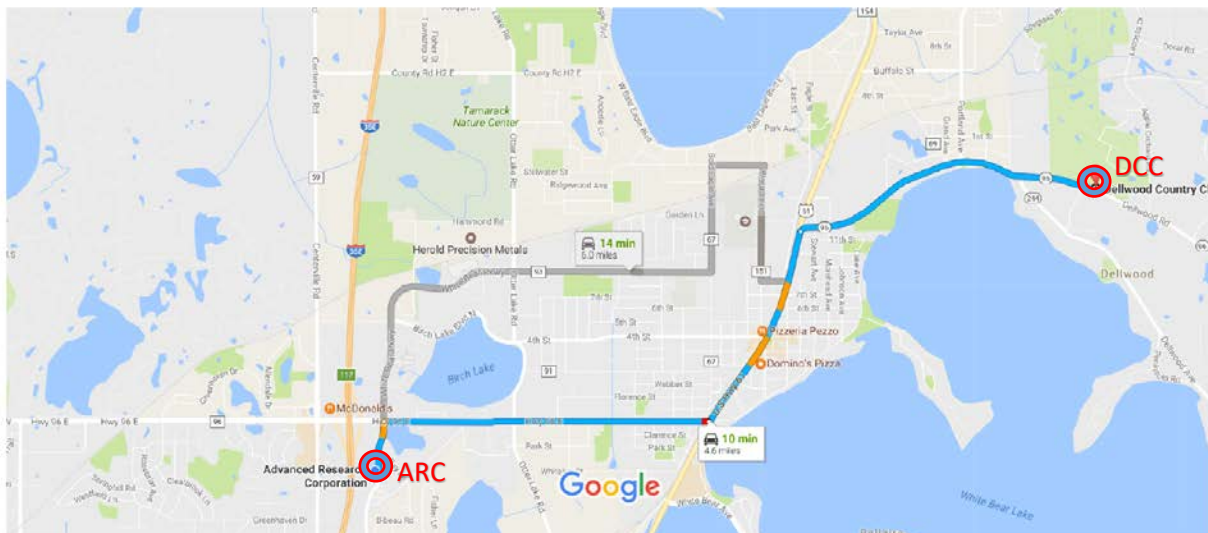
Plate curvature with transverse electric field is required needed to identify ions with various mass and charge

Description of Presentation

WVU and ARC are designing and building a Chip Scale MEMs fabricated Ion Spectrometer consisting of collimator and energy analyzer system to be used in combination with various particle detectors, the latter depending on the particle kinetic energy under observation. For ion spectroscopic analysis of low density magnetosphere and heliosphere plasmas in future CubeSats and NanoSat missions, the system needs 3D Integration in order to increase the probability of particle capture in a low density plasma environment. Using MEMs techniques and fabricating a single chip ion spectrometer, the added 3D stacking into parallel combination is yet another example of what 3D chip stacking can achieve.



Advanced Research Corporation to Dellwood Country Club Drive 4.6 miles, 10 min



Map data ©2017 Google 2000 ft