Metallography Lab (White 502/509) Dept. of Materials Science (DMSE) Case Western Reserve University

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By	Date

### Standard Operating Procedure

#### EQUIPMENT: Buehler Ecomet/Automet2/Ecomet Combination

SIGNIFICANT SAFETY PRECAUTIONS: Machine has pinch points and high temperatures. Take precautions to avoid injury, including safety glasses.

APPROVED BY:		DATE:	
PREPARED BY:	Xun Zhan	DATE: 10/27/	2012
JOB STEPS		SAFETY KE	LY POINTS

- 1 Positioning the sample into the sample holder. Central force sample holder is used. The samples are positioned with centrosymmetry.
- 2 <u>Positioning the autohead</u>. The autohead may be swiveled over the platen for semi-automatic use, or swiveled away from the platen for manual operation. To move the autohead loosen the head locking handle on the side then swivel the autohead as needed.
- 3 <u>Attaching and Securing sample holder</u>. The holder is attached to the autohead via the quick release lift lock chuck. Raise the outer sleeve of the lift lock chuck and insert the sample holder. Rotate as needed to ensure the holder is locked into place. Allow the outer sleeve to lower.
- 4 <u>Manual Operation</u>. Two Ecomet equipments can be used for manual operation. Turn on the polisher and press speed button to set the rotation speed of the plate; press water button when water is needed.
- 5 <u>Semi-Automatic operation</u>. Automet 2 is used for semiautomatic operation. Turn on the polisher. Before starting your polishing/grinding process, the program needs to be input into the controller. Program parameters are: Time, Speed, Fluid, Head rotation, Force. After setting these parameters, run this program.
- 6 <u>Turn off the polisher and remove the sample</u>. When you finished polishing, remember to turn off the polishers and detach the autohead and the sample holder, and then remove the sample from the sample holder.

### Authorized Operators:

Name:	Xun Zhan	Signature:	Date: 10/27/12
Name:		Signature:	Date:

# CERTIFICATION

I \_\_\_\_\_\_hereby certify that on \_\_\_\_/ \_\_\_a hazards Mame of Manager assessment of this procedure was performed for the purpose of specifying Personal Protective Equipment (PPE). I also certify that all authorized operators participated in the assessment, and received and understood training regarding PPE requirements for this procedure and that all authorized operators participated in the assessment and were trained in the proper PPE for the tasks described in this SOP. Signature:

Signature:	
Signature:	
_	Name of Manager
Title:	

## Personal Protective Equipment (PPE) Hazard Assessment Certification

hazards assessment of areawas performed for the purpose of specifying Personal Protective Equipment (PPE). I also certify that the following employees received and understood training regarding PPE requirements for this area.
regarding <b>PPE</b> requirements for this area.
(Please Print)
Name: Xun Zhan Name:
Name: Name:
Name: Name:
Name: Name:
Name: Name:
Name: Name:
Name: Name:
Name: Name:
Name: Name:
Name: Name:
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Name:
Signature:
Title:
Date: