

Materials List for:

Fragility Assessment of Bovine Cortical Bone Using Scratch Tests

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Materials

Name	Company	Catalog Number	Comments
Table Top Diamond Band Saw	McMaster Carr, Elmhurst, IL	Model C-40	Blade speed of 40 mph; Blade dimensions: 37 inch in diameter, 0.02 inch wide and 0.14 inch deep
Buehler Isomet 5000 Precision Cutter	Buehler,41 Waukegan Rd, Lake Bluff, IL 60044	112780	Blade speed in the range of 200-5000 rpm in 50 rpm increments; 8 inch diamond wafering blade
Branson 5800 Ultrasonic Cleanser	(Through) Grainger, Peoria, Illinois	39J365	Brasonic CPXH ultrasonic bath has a tank capacity of 2.5 gal
Buehler Ecomet 250 Grinder - Polisher	Buehler,41 Waukegan Rd, Lake Bluff, IL 60044	497250	8 inch base plate with a speed range from 10-500 rpm
Anton Paar, CSM Instruments Micro scratch tester	Anton Paar Switzerland AG	163251	Compact Platform, Acoustic Emission Sensor
JEOL 6060LV general purpose scanning electron microscope	JEOL USA, Inc., Peabody, MA		Environmental scanning electron microscope which enables imaging at low vacuum levels.
Philips XL30 ESEM FEG	FEI Company		Wet mode working of the instrument enables imaging of non conductive samples without altering them
Name	Company	Catalog Number	Comments
Consumables			
Bovine Femur	L&M Slaughter house, Georgetown, IL		Corn fed, 24-30 month old mature bovine specimens.
Alconox Powdered Precision Cleaner	Alconox, Inc., 30 Glenn St., Ste. 309, White Plains, NY, 10603	1104-1	Biodegradable, Non caustic, Interfering-residue free
Acrylic Plastic Casting	Electron Microscopy Sciences	24210-02	Polymethyl Methacrylate
CarbiMet SiC Abrasive Paper 400 grit, 8 inch, PSA backed	Buehler,41 Waukegan Rd, Lake Bluff, IL 60044	36080400	Grinding - Abrasive Papers
CarbiMet SiC Abrasive Paper 600 grit, 8 inch, PSA backed	Buehler,41 Waukegan Rd, Lake Bluff, IL 60044	36080600	Grinding - Abrasive Papers
MicroCut Discs 800 grit, 8 inch, PSA backed	Buehler,41 Waukegan Rd, Lake Bluff, IL 60044	36080800	Grinding - Abrasive Papers
MicroCut Discs 800 grit, 8 inch, PSA backed	Buehler,41 Waukegan Rd, Lake Bluff, IL 60044	16081200	Grinding - Abrasive Papers
Texmet P For 8" Wheel PSA	Buehler,41 Waukegan Rd, Lake Bluff, IL 60044	407638	Polishing Cloth
8" Microcloth PSA	Buehler,41 Waukegan Rd, Lake Bluff, IL 60044	407518	Polishing Cloth
Meta Di Supreme Polycrystalline Diamond Suspension, 3 µm	Buehler,41 Waukegan Rd, Lake Bluff, IL 60044	406631	Polishing suspension
Meta Di Supreme Polycrystalline Diamond Suspension, 1 µm	Buehler,41 Waukegan Rd, Lake Bluff, IL 60044	406630	Polishing suspension

Meta Di Supreme Polycrystalline Diamond Suspension, 0.25 μm	Buehler, 41 Waukegan Rd, Lake Bluff, IL 60044	406629	Polishing suspension
MasterPrep Polishing Suspension, 0.05 μm	Buehler, 41 Waukegan Rd, Lake Bluff, IL 60044	40-6377-032	Polishing suspension
HBSS, calcium, magnesium, no phenol red	Thermo Fisher Scientific	14025126	Buffer Solution