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LABORATORY REPORT

Advanced
Materials
Center, Inc.

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To: World Centric
Aseem Das

Date: August 11, 2009
Project #: 09P1214 Cutlery
PO #: 310

Purpose:

Evaluate and compare composition of a cutlery sample. Use FTIR to determine the composition to be poly (lactic acid) polymer (PLA). Run and ash (%Weight) on the polymer sample.

Sample Identification:

A. Injection Molded Cutlery, Sample #2 Off White Spoon

Source:

China

Conclusions:

In our opinion, based on our analysis, Sample A is a good match to PLA based polymers with Talc filler.

Results:

FTIR analysis shows the sample A to be a PLA based resin blended with 28.54% Talc. The Talc filler was confirmed by FTIR analysis of the ash from the blend.

Experimental / Discussion:

A Perkin Elmer 100 Series FTIR with DATR was used to evaluate the sample as received. The spectra of the cutlery are attached for your review.

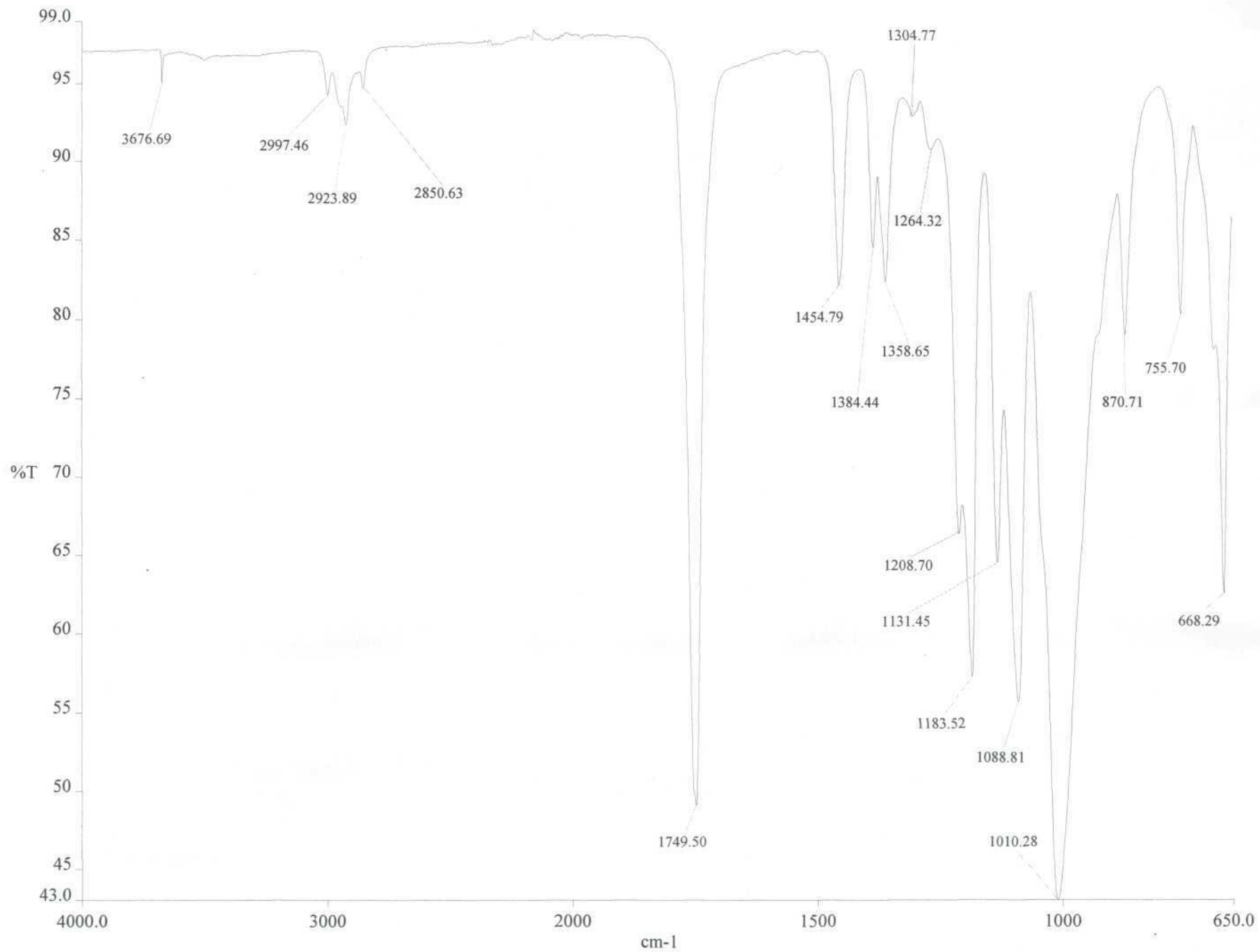
The composition of sample A is nearly identical to a previously analyzed PLA resin materials which has been modified by the addition of talc filler.

The talc filler identification was confirmed from the residue of an ash analysis of the sample A material using FTIR analysis. This spectrum is also attached.

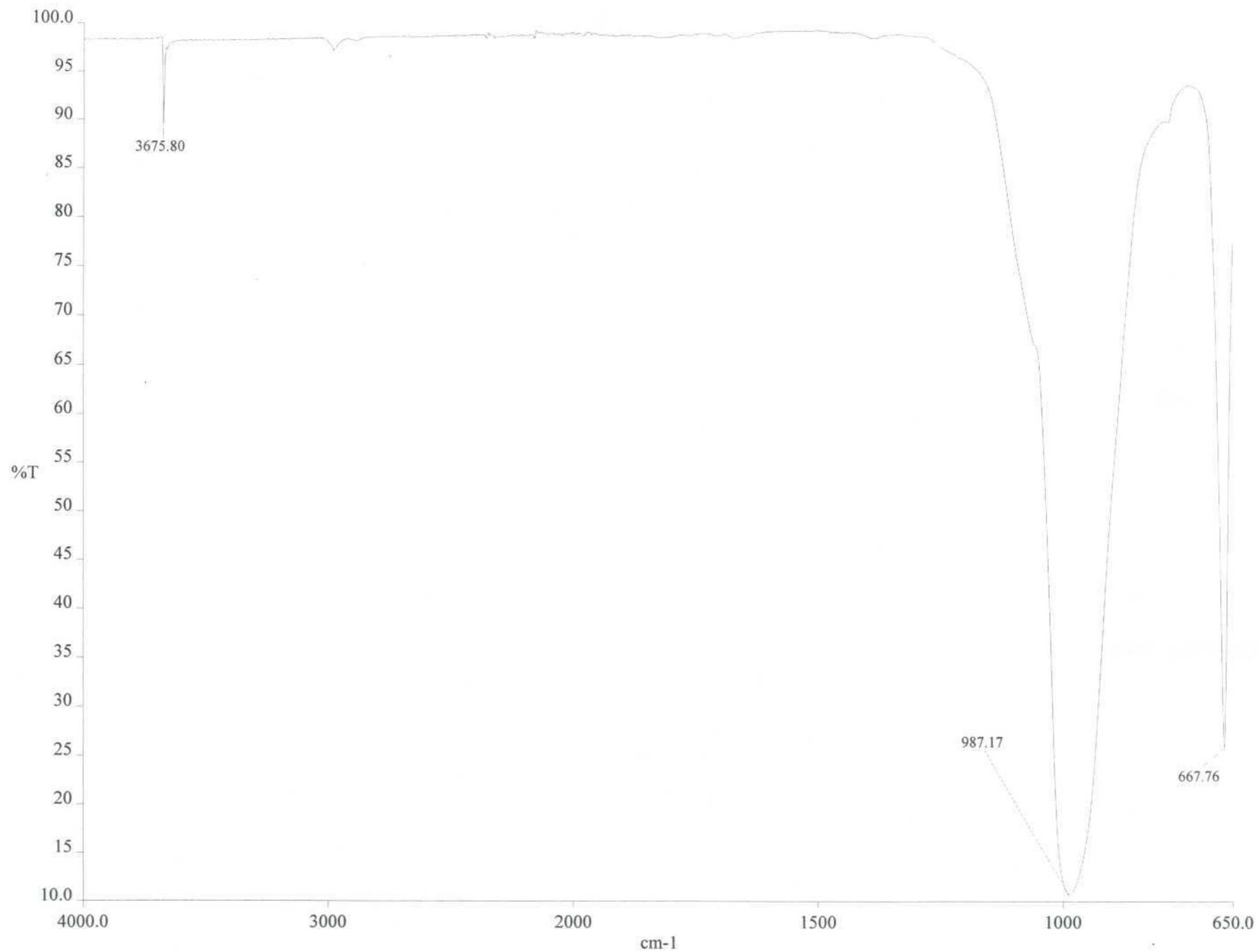


Ronald Walling
President

Attachments: FTIR Spectra



c:\pel_data\spectra\12612.sp - 09P1214 - World Centric - Sample  - Cutlery



c:\pel_data\spectra\12640.sp - 09P1214 - World Centric - Sample A - White Cutlery - Spoon Ash