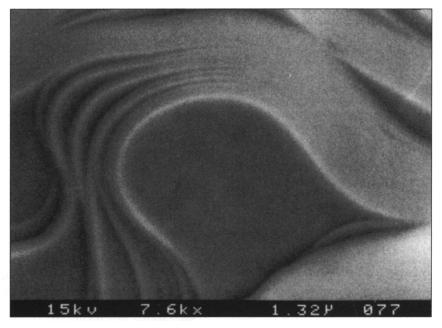
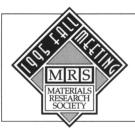
Figures appearing in EDITOR'S CHOICE are those arising from materials research which strike the editor's fancy as being aesthetically appealing and eye-catching. No further criteria are applied and none should be assumed. When taken out of context, such figures often evoke images beyond and unrelated to the original meaning. Submissions of candidate figures are welcome and should include a complete source citation, a photocopy of the report in which it appears (or will appear), and a reproduction-quality original drawing or photograph of the figure in question.



It's hard to identify the flavor from a monochrome photo, but this month's EDITOR'S CHOICE figure is undoubtedly of a telltale spatula incurvation in a scrumptious pastry frosting. Well, not exactly. Perhaps it's layered and folded phyllo-dough on its way to becoming the pastry itself. Not quite! Then it must be an edge on view of pleats in the apron of the chef who intends to bake the pastry. No again. You see, although there is indeed a connection to the culinary arts, it is, alas, to salad dressing, not dessert. We have here an SEM micrograph showing the morphology of the high-temperature superconductor, yttrium-123, after sintering at 930°C for 12 hours in flowing oxygen. The extraordinarily smooth appearance derives from its very high density which in turn is due to the properties of its precursor powder constituents. The chefs' recipe, as reported by P. Kumar, V. Pillai, S.R. Bates and D.O. Shah in Materials Letters 16 (1993), pp. 68-74, includes calcining (at 800°C in air for 12 hours) a mixture of nanosized compositionally homogeneous particles composed of yttrium, barium, and copper oxalates in the stoichiometric ratios of the 1-2-3 material. How did the authors cook up the tiny homogeneous ingredients? Why, in Italian dressing, of course. The starting compounds were dissolved in a water-acetic acid solution (the vinegar) and suspended as a microemulsion in cyclohexane (the oil). When mixed with a similar microemulsion containing oxalic acid in its aqueous cores (the curdling agent), merged microdomains hosted nanosized oxalate precipitates and the rest is history.



## Women in MRS

Tuesday, November 28, 7:00–8:00 am, room TBA All interested MRS members are invited to attend this informal meeting to address the concerns of women in materials science and to promote women in the field.

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