



Lab in a box

Adrian Villalta-Cerdas created this resin art to allow students to safely handle small amounts of chemicals during his general chemistry lectures at Sam Houston State University. Here, copper acetate appears in its solid form on the left and in an aqueous solution on the right. To make the resin casts, Villalta-Cerdas fills 1-mL flasks with the desired compounds and then fills the bottom of a silicon mold with some epoxy resin. Once it hardens, he adds the flasks, covers them with resin, and allows it to harden for 48 hours. He's also made casts of liquid mercury, nickel(II) chloride, and graphite, to name a few. If a student were to drop a cast, the glass containers inside might break, but the compounds would remain safely encased inside the resin. Villalta-Cerdas says the reaction from his students has been mostly positive, but adds, "With college students, it is hard sometimes to tell if they like something or not."

盒中实验室

Adrian Villalta-Cerdas 创造了这种树脂艺术，好让学生们可以在他在山姆休斯顿州立大学的化学课上安全地处理少量的化学物质。在这里，醋酸铜以固体形式出现在左边，以水溶液形式出现在右边。为了制作树脂模型，Villalta-Cerdas 用所需的化合物填充 1 毫升的烧瓶，然后用环氧树脂填充硅模具的底部。一旦它变硬，他就把烧瓶加进去，涂上树脂，并使其硬化 48 小时。他还制作了液态水银、氯化镍 (II) 和石墨等的铸模。如果一个学生把铸模掉到地上，里面的玻璃容器可能会破裂，但是化合物会安全地包裹在树脂里。Villalta-Cerdas 说，他的学生的反应大多是积极的，但补充道，“作为大学生们，有时很难判断他们是否喜欢某样东西。”

Submitted by / 图片来源: Adrian Villalta-Cerdas

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