

Re: pirahna solution

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- *From:* Uncle Al <UncleAl0@xxxxxxxxxxxxxx>
 - *Date:* Tue, 31 May 2005 11:47:12 -0700
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andrea_gazze@xxxxxxxx wrote:

>
> well, i have silicon wafers with gold areas. yes, i know the O2 dry
> plasma, but my company hasn't the needed instrumentation. what do you
> think of aqua regia? Is it less dangerous than piranha solution? I know
> that aqua regia destroy gold, but for short time contact it could be
> used to clean gold.
> thank you for your reply

Plasma ashing is much to be preferred – fast, effective, no chemical waste, no residuals. Cells are very happy with plasma ashed metal surfaces.

Piranha solution can spontaneously explode just sitting there. 30% hydrogen peroxide is death on skin contact – it rapidly diffuses in through surface callous then explodes into oxygen on contact with catalase in living tissue. Its mixing with H₂SO₄(conc) is exothermic and can explode. I would feel uncomfortable with the reagent.

Aqua regia goes through gold very rapidly indeed. Newly warmed freshly made hot aqueous persulfate in a sonicator ought to be very aggressive. Hot nitric acid by itself is very aggressive.

Do the work in a fume hood. Wear substantial gloves.

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Uncle Al

<http://www.mazepath.com/uncleal/>

(Toxic URL! Unsafe for children and most mammals)

<http://www.mazepath.com/uncleal/qz.pdf>

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- *References:*
 - ◆ **[pirahna solution](#)**
 - ◇ *From:* andrea_gazze
 - ◆ **[Re: pirahna solution](#)**
 - ◇ *From:* Uncle Al

Re: pirahna solution

◆ **Re: pirahna solution**

◇ *From:* andrea_gazze

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