Tests of Anomet Aluminum Reflectors in Ultrapure Water

C. Lu and K.T. McDonald Princeton University (Jan. 5, 2007)



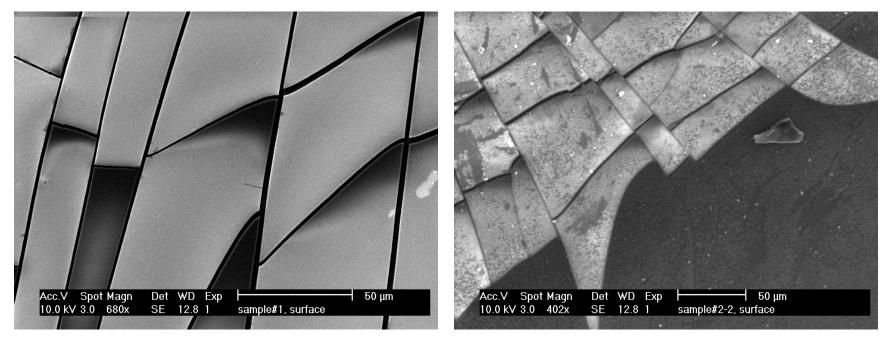
Jan. 5, 2007

C. Lu & K. McDonald, Princeton University



New surface

In the water for 75 days



Bad!



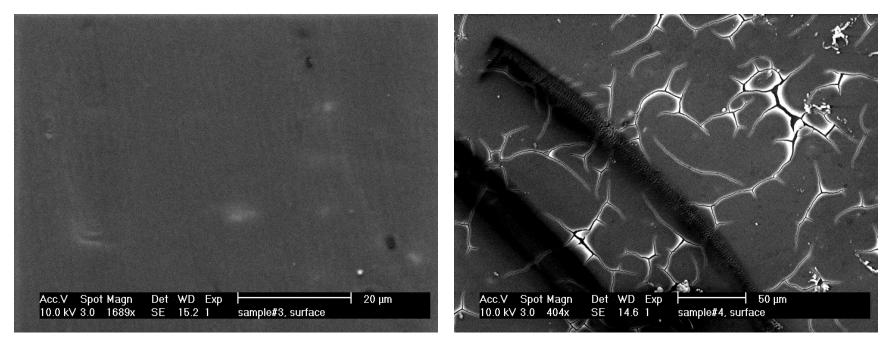
Jan. 5, 2007

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New surface

In the water for 75 days



Bad!



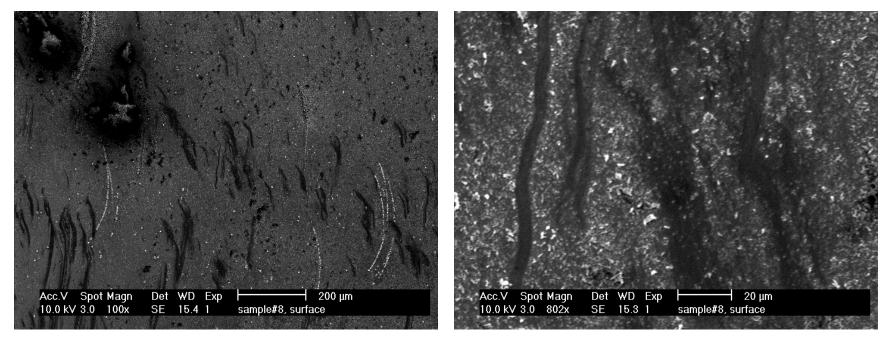
Jan. 5, 2007

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Anolux MIRO Silver

In the water for 75 days



Bad!



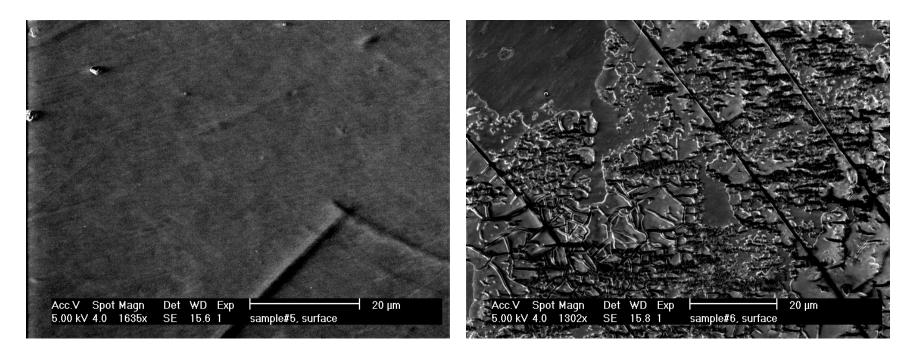
Jan. 5, 2007

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New

In water for 75 days



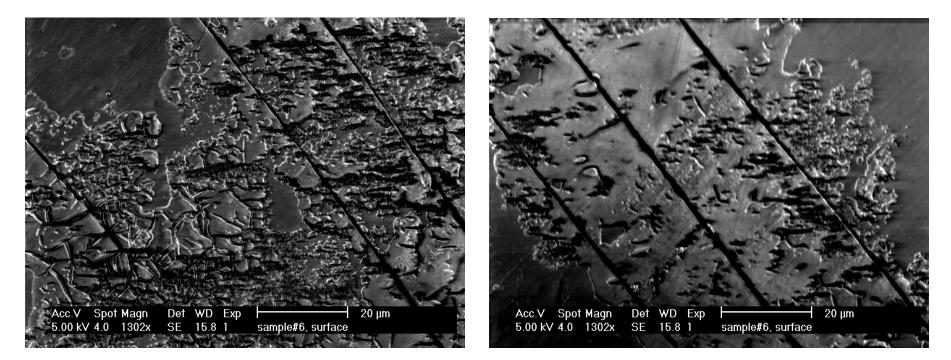


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More pictures for the in-water sample





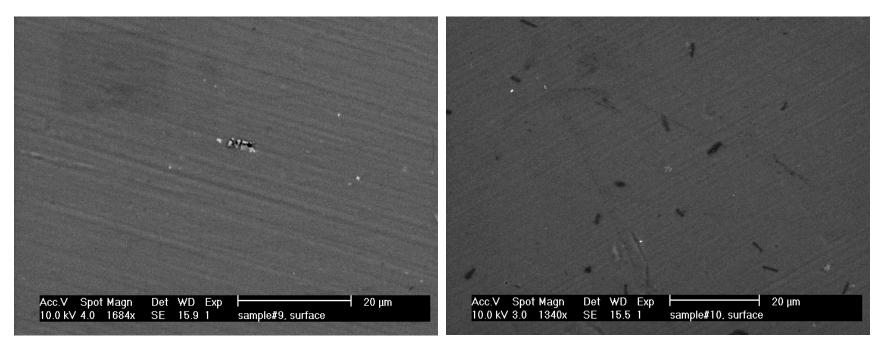
Jan. 5, 2007

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Anolux MIRO IV

In water for 75 days



Better than others, at least after 75 days no noticeable corrosion found on the surface.

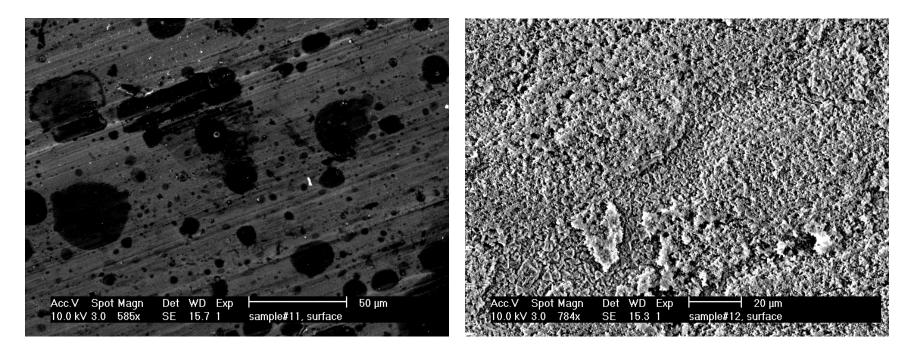


Jan. 5, 2007



Above water

In water for 35 days





Jan. 5, 2007

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What next

- Although the Anolux MIRO IV is better than others, but it is only in the water for 75 days, we'll continue the test.
- Use SEM/EDX system to do the chemical analyses of sample's surface. Energy dispersive X-ray (EDX) analysis can use the characteristic spectrum of x-rays emitted by the specimen to obtain information about its elemental composition. That will tell us why some sample is better than others, what chemical components are lost in the water, etc. That will help us to choose the right building material.
- Test every material that will put into the water, make sure all of them are compatible with the water.
- Monitor the water quality for its pH, resistivity in long term.



