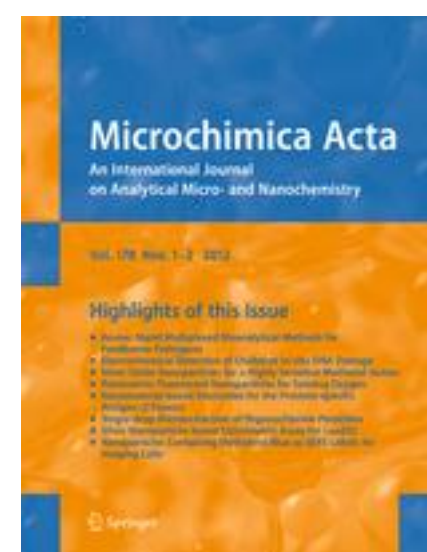


Retraction Watch

Tracking retractions as a window into the scientific process

Concerns about image manipulation? Sorry, the data were lost in a flood

with 11 comments



Lost your data? Blame nature.

Microchimica Acta has retracted a paper about water-soluble quantum dots after the authors couldn't provide back-up for a figure that contained signs of manipulation. The reason, the editor told us: The corresponding author said the raw data were lost in a flood in Sri Lanka.

The journal asked the authors for the data after an investigation suggested that the paper included copied pictures of the same nanoparticle. The paper is [one of four by the pair of co-authors flagged on PubPeer](#) for potential image duplication.

Here's the [retraction note](#) for "[CdS/ZnS core-shell quantum dots capped with mercaptoacetic acid as fluorescent probes for Hg\(II\) ions:](#)"

Following information that Figure 1 in this publication (see the picture on top) may have been manipulated, further investigation revealed that the nanoparticles are pixel for pixel the same in every instance, suggesting that they are the same nanoparticle image-copied and pasted. Certain nanoparticles have a harsh white boundary at the bottom right corner independent of whether they are located on top of another nanoparticle or on the background image. Finally, an image integrity check (bottom picture) established significant differences in noise levels between the nanoparticles and the background.

The paper has been cited 19 times, according to Thomson Reuters Web of Science.

We've seen a similar explanation for lost data before — see [Lost your data? Blame an earthquake](#).

The editor in chief of *Microchimica Acta*, [Otto Wolfbeis](#), outlined the process behind this retraction:

(1) I was alerted by a French colleague who (with others) found the graphs of several papers of the authors, one in Springer's *Microchimica Acta*; even 3 in Elsevier's *Sensors and Actuators*) to be unusually uniform. He suspected that graphs may have been manipulated.

(2) Springer asked independent experts to comment on this and performed a pixel analysis of the graphs under consideration. Experts agreed that data look as if they had been edited in an improper way. Pixel analysis performed by a professional revealed differences in the pixellation of various sections in the

graph.

(3) I asked the authors to comment on the criticism and asked for original experimental data (“raw data”) but was told by Dr. Koneswaran (the author for correspondence) that data have been lost in a big flood in Sri Lanka.

(4) We then alerted the University of Manchester (Head of Research Governance, Ethics and Integrity) and the Sri Lanka Institute of Technology (SLINTEC) of the situation.

(5) Following a balanced internal discussion of the facts, and given the inadequate response of the authors, we decided to retract the article.

Floods are a [common concern](#) for Sri Lanka; Wolfbeis wasn't sure which flood the author was referring to.

Three other papers [flagged on PubPeer](#) are all published in *Sensors and Actuators B: Chemical*, of which co-author [Ramaier Narayanaswamy](#) is listed as an editor.

Koneswaran was finishing up his PhD at the University of Manchester in 2009 according to [his bio](#) on one of the flagged papers, and Narayanaswamy retired from there in 2010. The retracted paper, published in 2012, lists affiliations for Koneswaran at both the University of Manchester and SLINTEC.

The [Research Governance and Integrity Manager](#) for the [University of Manchester](#) told us:

We do not comment on individual cases but any matter of research misconduct brought to our attention is considered under our Code of Practice for Investigating Concerns about the Conduct of Research.

We've reached out to Koneswaran, Narayanaswamy, and a couple other editors at *Sensors and Actuators B: Chemical*. We'll update this post with anything else we learn.

Like Retraction Watch? Consider making a [tax-deductible contribution to support our growth](#). You can also follow us [on Twitter](#), like us [on Facebook](#), add us to your [RSS reader](#), sign up on our [homepage](#) for an email every time there's a new post, or subscribe to our [new daily digest](#). Click [here to review our Comments Policy](#). For a sneak peek at what we're working on, [click here](#).

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Written by Shannon Palus

March 29th, 2016 at 2:00 pm

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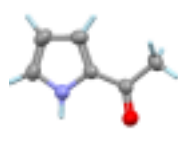
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• *Feo Takahari* March 29, 2016 at 2:16 pm

So you're saying #labwasflooded?

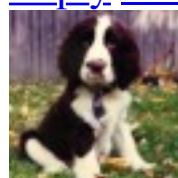
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• *Sylvain Bernès* March 29, 2016 at 2:20 pm

“The raw data were lost in a flood in Sri Lanka.”... Ironically, these researchers synthesize water soluble quantum dots.

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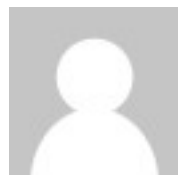


• *Helene Z Hill, PhD* March 29, 2016 at 3:49 pm

Gosh! That's almost as bad as having your data eaten by termites!

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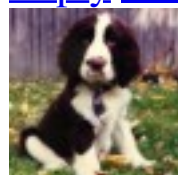
View the reply to Helene Z Hill, PhD's comment



• *KK* March 30, 2016 at 7:55 am

jokes aside – flood can be a real threat to the laboratories in some parts of the world. I had even known laboratories lost everything because of flooding due to water pipe breakage – in addition to the natural causes.

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• *Helene Z Hill, PhD* March 30, 2016 at 10:15 am

That's why there are sites like Open Science Framework and Figshare where you can post data to avoid losing it.

Hide the reply to *Helene Z Hill, PhD's* comment



Climatechange April 4, 2016 at 7:06 am

Helene: Lets give it a benefit of doubt. One can loose a lot in floods. I have a first hand experience of loosing everything- it doesn't feel good (especially when you need the help of Red Cross)

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• *KK* March 30, 2016 at 1:26 pm

exactly – not every department or institute will have such a facility in the low and middle income countries. I am not defending the above act, but we should know that there are some places in the world where there are limited resources.

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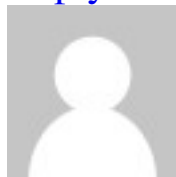
• *Lee Rudolph* March 30, 2016 at 8:19 pm

ELF

propitiatory software

Prayer wheels move into the 21st century!

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• *Marco Bersani* March 31, 2016 at 4:42 am

It was discussed on reddit 1 year ago

https://www.reddit.com/r/chemistry/comments/2wf0ml/suspicious_tem_in_sensors_and_actuators_b_chemical/

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• *imohacsi* March 31, 2016 at 7:06 pm

@KK: Hehe so true. In most countries academia gets the leftover real estate that doesn't worth stealing. In my hometown (Eastern EU) the latest university buildings are cancelled hotel investments after they realized that the whole building is sinking into the swamp 😊

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ELF March 30, 2016 at 10:43 am

Yes, though not every project will have legal and/or ethical clearance to store it there. There may be additional issues around having access to software/hardware needed to read and analyse data, e.g. propitiatory software that can only be installed on computers located on campus.

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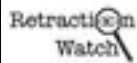
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