



News from the Technical Library

June 2016

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Resources Spotlight: Citation metrics using WoS and Scopus; Updated *Publishing in Top Journals* page

Have you ever wondered where “citation metrics” come from and what they mean (and why the numbers never match)? A new article [Measuring Knowledge Translation Uptake Using Citation Metrics: A Case Study of a Pan-Canadian Network of Pharmacoepidemiology Researchers](#) (Melissa Rothfus, Ingrid S. Sketris, Robyn Traynor, Melissa Helwig & Samuel A. Stewart; *Science and Technology Libraries* Pages: 1-13. DOI: 10.1080/0194262X.2016.1192008) describes the challenges of gathering and interpreting citation metrics for journal publications using Web of Science (WoS), Scopus and Google Scholar. The Technical Library provides access to WoS and Scopus metrics, and we use Google Scholar in most citation reports. If you have questions or need help with any of these tools, please contact [us](#)

Another resource in this area is the “[Publishing in Top Journals](#)” quartile tool, just updated with the most recent Journal Citation Reports (WoS) data. See the impact factors for top-quartile journals in most subject categories (including *Green & Sustainable Science & Technology*, new this year. If your subject category is missing, [let us know!](#)). And if you have questions about interpreting this information, contact [us](#).

Service Spotlight: NEWSBridge

Another reminder of this free service from the Technical Library: Read recent issues and subscribe to future issues at <http://libraryweb.pnnl.gov/newsbridge/>. Published Monday through Friday (excluding holidays) by library staff, check out human-curated news stories relevant to PNNL, DOE, Hanford, Energy Policy, Security, Science & Technology, and more.

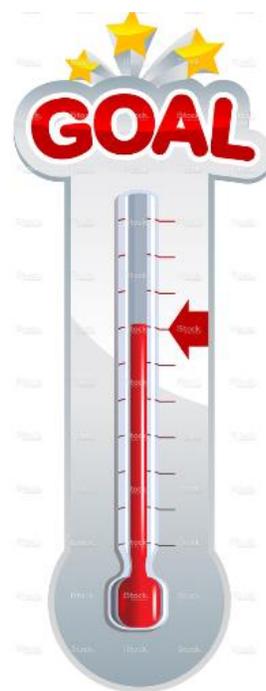
ORCID@PNNL: 175 to go! And other updates

ORCID@PNNL Count: We now have approximately **325** (known) ORCID IDs at PNNL. If you have not registered yet, go to www.orcid.org and get your own ORCID ID, then email orcid@pnnl.gov with your number*. Our goal is **500 ORCID IDs** before FY17, so every ORCID counts!

The new ORCID newsletter will be sent out this week: everyone at the Lab with an ORCID ID (that I know of!) is on the mailing list. We are ramping up to get back on campus and help folks register and/or complete their profiles, so watch for announcements in Inside PNNL, the Whiteboard and the Lab Calendar.

If you would like a presentation on ORCID to your team or group, please email orcid@pnnl.gov. The time investment for registering is minimal, and while the benefits may seem a bit ephemeral, they are significant: a complete and accurate record of your professional accomplishments in just a couple of clicks! And you control privacy settings for everything you include. Articles submitted with an ORCID (increasingly a requirement by journal publishers, funders, etc.) will be automatically updated with corrected information (e.g., title changes, author list order, print date—volume and pagination).

We are still working on a more complete website, and hope to have a rollout soon! And there will be a “Wall of Famers”—it is not too late to [submit your ORCID link](#) to be included!



Newsworthy Issues in Scientific Publishing: Being an editor

[What's it like to be an editor in scholarly publishing?](#) "...I offer here a reality check for those who haven't (yet) been on both sides: a look into the not-so-glamorous lives and habits of journal editors. ..."

JFF (Just For Fun): Independence Day! (History & fireworks)

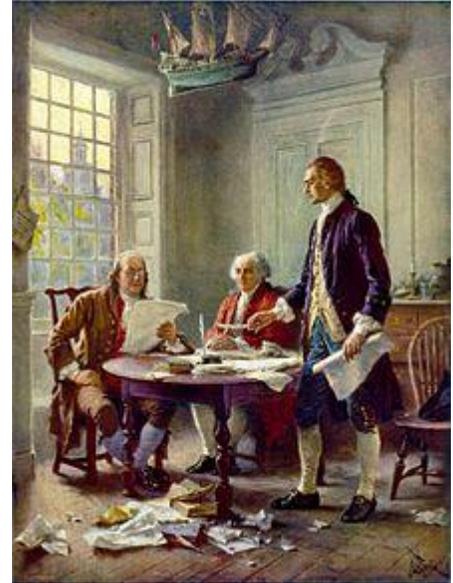
Since it's an election year, time to brush up a bit on US History.

[Fourth of July Trivia: History, Celebrations & Symbols](#)

[Fourth of July—Not **just** Independence Day](#)

[Questions from the test for US Citizenship](#)

[The hardest quiz \(from AARP\)](#)



And what about Fireworks?? ([Fireworks rules for the Tri-Cities](#))



[A brief history \(Popular Mechanics\)](#)

[How to make some \(and a couple more\)](#)

200 science • MATTER You see a firework explode before you hear it being launched. Light travels about a million times faster than sound. **77,282** The most fireworks ever used in a single display (Glasgow, 2012). The biggest fireworks can be launched more than 300 m (1,000 ft) into the air.

Chemical reactions

When you watch a display of fireworks shooting, screaming, and dancing their way across the sky, you are seeing the power of chemistry bursting into action.

The world often seems unchanging, but in fact, little things are constantly rearranging themselves – breaking down old things and building up new ones. Chemistry helps to explain how this happens through step-by-step changes called chemical reactions.

In a reaction, elements join together to make bigger units called compounds, or compounds split back into their original elements. Many reactions are silent and invisible. Others, like an exploding firework, are energetic and violent. Reactions are the amazing transformations that drive many of the things around us. When candles flicker and cakes rise in your oven, reactions are rearranging atoms into new and different forms.

What is a firework?
A firework is a capsule packed with explosive chemicals that shoots high into the sky before shattering in a series of carefully controlled and very colorful reactions. In most chemical reactions, the end products are what matter most. How they are produced isn't important. A firework display is the opposite – the chemical reaction itself is what we want to see.

Launch
Most chemical reactions need to be "kicked started" some would say, by activation energy. When a firework is launched, an explosive charge at the bottom of the firework starts burning, and then the firework is blasted out of its tube.

Mortar stand
The firework capsule is held in a mortar stand that can be moved up or down to change the height of the display.

Lift fuse
The lift fuse is connected to one of the mortar stands. As the capsule rises, it triggers the next in the sequence.

The outer shell explodes
Once the firework is safely in the sky, the outer shell sets fire to the outer shell. This sets off into dozens of small separate explosions as they race through the sky.

Bright lights
The bright lights are the result of the chemical reactions that are taking place.

Symmetry
Chemical reactions are symmetrical, with the same number of atoms on each side of the reaction.

Beautiful shapes
The different fireworks are made up of different shapes and sizes of particles that are set off at different times.

The final explosion
The time delay fuse burns at a certain rate, so the final explosion happens when the firework has reached its highest point in the sky. Most of the explosive is packed into the middle of the firework so the final explosion is the biggest and most spectacular.

Report charge
A firework explosion doesn't stop there. A small fuse is added to the outer shell. This is the report charge.

Start
The start of the firework is the report charge.

Block powder
A light sensitive powder is used to control the time delay fuse.

Outer shell
The outer shell is the part of the firework that is launched into the air.

Lift charge
The lift charge is the part of the firework that is used to launch the firework into the air.

Time delay fuse
The time delay fuse is the part of the firework that is used to control the time delay.

Chemistry of colours
Chemical reactions give off light when atoms are heated up and emit energy. Different atoms absorb and give out different amounts of energy, which makes different coloured light. In a firework, each colour is produced by a separate metal compound.

Magnesium
Copper salts
Sodium nitrate
Barium nitrate
Sodium salts
Iron

What is a chemical reaction?
In a chemical reaction, one ingredient (called a reactant) combines with a second one. During the reaction, the bonds that hold together the atoms or molecules of the reactants split apart. The atoms then rearrange themselves and new bonds form between them to make a different set of chemicals called the product.

Types of chemical reaction
Although the products can be very different from the reactants, no atoms are created or destroyed. So, no matter how the reaction takes place, there are always the same number of each kind of atom after a reaction as there were before it. There are three main types of chemical reaction.

SYNTHESIS REACTION - TWO OR MORE REACTANTS JOIN TOGETHER

DECOMPOSITION REACTION - ONE REACTANT BREAKS APART INTO TWO PRODUCTS

DISPLACEMENT REACTION - ATOMS OF ONE TYPE SWAP PLACES WITH THOSE OF ANOTHER, FORMING NEW COMPOUNDS

Combustion
Car engines, power stations, and home heating are three common things powered by a chemical reaction called combustion (burning). The reactants are a fuel (perhaps petrol or coal) and oxygen from the air. Adding heat (setting fire to the fuel) provides activation energy that starts the reaction and releases more energy as fire.

JFF 2: [Follow-up to previous QOM on Mobile Resources](#)

Please email the [library](#) if your experience is anything like this example.

Question of the month: Have you ever been an editor or reviewer for a journal?

Yes _____ No _____

If yes:

Bonus question #1. What was the journal _____

Bonus question #2. What were the dates _____

Bonus question #3. What was your title _____

Bonus question #4. Any comments, thoughts, on your experience _____

Save the date!! October 25, 2016

The Technical Library's first ever **Publishing and Vendor Fair** is coming! Stay tuned...

All respondents receive a gift through plant mail (All new prizes this month! Additional prizes for bonus questions; *another* bonus prize the **first** time you include your **ORCID ID**). Reply to this email (please include your MSIN) or [email](#) Barbara Wetzel.