From:	Mayer, Mark (NIH/NICHD) [E]
To:	CCP4BB@JISCMAIL.AC.UK
Subject:	Re: [ccp4bb] Fwd: [ccp4bb] FW: [ccp4bb] Resolution and distance accuracies
Date:	Thursday, January 06, 2011 9:56:46 PM

Dont forget all the "atomic resolution" 3Å structures!

_____
From: Pavel Afonine [pafonine@GMAIL.COM]
Sent: Thursday, January 06, 2011 6:23 PM
To: CCP4BB@JISCMAIL.AC.UK
Subject: Re: [ccp4bb] Fwd: [ccp4bb] FW: [ccp4bb] Resolution and distance accuracies

Hi,
creative language, you say... ha-ha. Go through this:

A number of publications define ultrahigh or subatomic resolution in the range of 1.0–0.5A (Lecomte et al., 2008; Petrova et al., 2006; Howard et al., 2004; Guillot et al., 2008; Housset et al., 2000).

Right? When you see ultra-high resolution, you can arbitrary pick any number from 1 to 0.5A, and call it "ultra-high resolution", just arbitrarily.

What happens at lower resolution end is somewhat a bigger mess simply because there is no such eye-catching names, so "super-resolution" looks just fine to me - just to fill the gap, unless you know which numbers you mean.

And to know these numbers you probably need to carefully read this paper. Not necessarily it will give you the numbers, but definitely the ideas to think about:

Acta Cryst. (2009). D65, 1283-1291
On the use of logarithmic scales for analysis of diffraction data
A. Urzhumtsev, P. V. Afonine and P. D. Adams

Good luck!
Pavel.

On Thu, Jan 6, 2011 at 2:48 PM, Gerard Bricogne
<gb10@globalphasing.com<mailto:gb10@globalphasing.com>> wrote:
Dear Colin,

Wladek Minor has just drawn my attention to the following recent paper:

Acta Cryst. (2010). D66, 1041.1042

(that I must admit to having failed to notice) also expressing reservations
about some uses of "creative language".

With best wishes,

Gerard.

--
On Thu, Jan 06, 2011 at 11:13:41AM -0000, Colin Nave wrote:
> I too think the phrase super-resolution is rather misleading, in particular the analogy with light microscopy methods. Super-resolution in these latter cases is achieved via different physical phenomena (think excitations not waves).
>