

## BornAgain - Feature #1030

### SLD, specular and particle density

07 Apr 2015 23:20 - a.glavic

<b>Status:</b>	Rejected	<b>Start date:</b>	07 Apr 2015
<b>Priority:</b>	Normal	<b>Due date:</b>	
<b>Assignee:</b>		<b>% Done:</b>	0%
<b>Category:</b>		<b>Estimated time:</b>	0.00 hour
<b>Target version:</b>			
<b>Description</b>			
<p>Particle density does not seem to be taken into account when calculating R/T parameters. Simple example is a 2D lattice of relatively dense particles (e.g. lattice parameter <math>2 \times \text{radius}</math>) in an air layer. Specular reflectivity in this situation is calculated equal to the pure substrate, although the layer SLD is 30%-40% of the particle SLD. It's not possible to circumvent this by just setting the layer sld to the actual density, as this decreases the contrast for the in-plane structure factor.</p> <p>Expected behavior: The particle density is calculated and the SLD for the R/T calculation is the particle SLD * particle density + layer SLD * (1-particle density)</p>			

#### History

**#1 - 15 Apr 2015 16:49 - herck**

- Status changed from New to Backlog

**#2 - 15 Apr 2015 16:49 - herck**

- Tracker changed from Bug to Feature

**#3 - 30 May 2016 16:09 - wuttke**

- Parent task set to #1438

**#4 - 15 Sep 2017 11:30 - pospelov**

- Status changed from Backlog to Rejected

Rejected, see [#1823](#)

**#5 - 18 Sep 2020 18:12 - wuttke**

- Parent task deleted (#1438)