

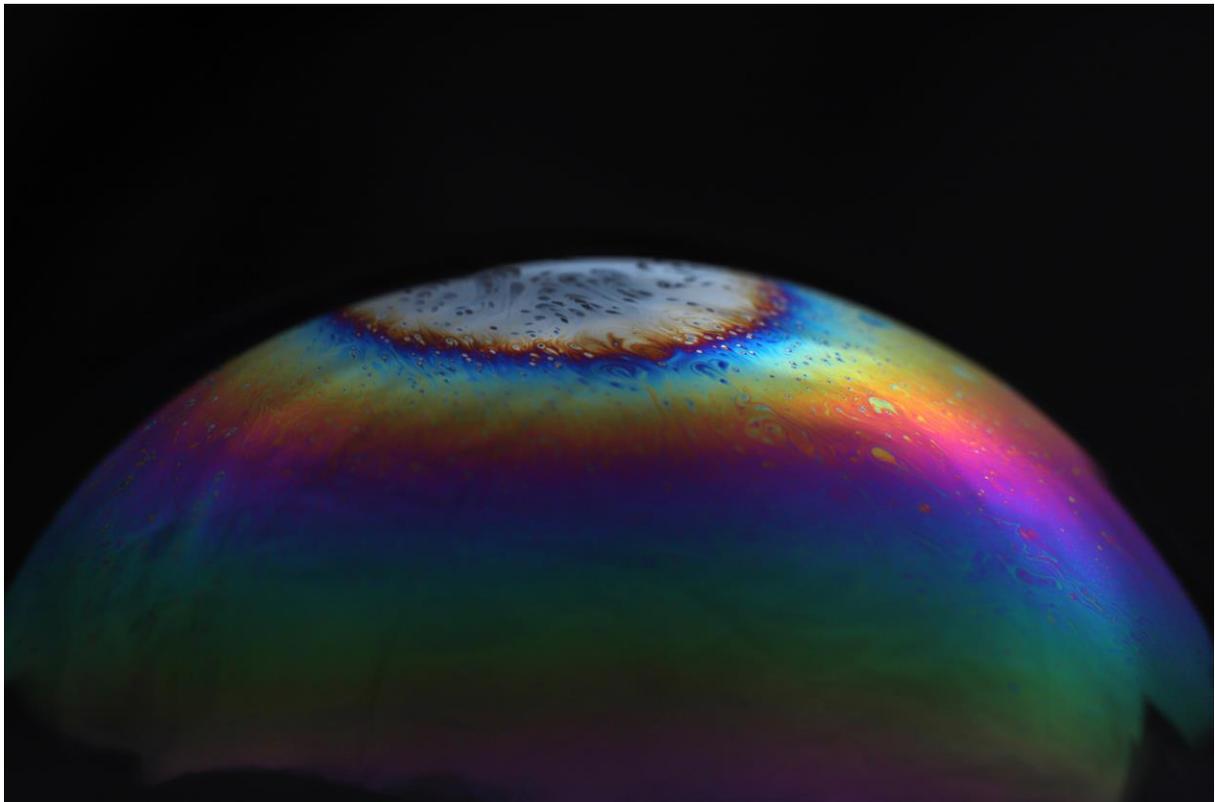
Lock Down Photography Projects

Bubble Photography

By
Robert Snary

This is another photography project that I have undertaken during lockdown and is something else that doesn't need too much equipment, the idea has been undertaken by numerous people so no originality is claimed but the experimentation is fun.

Bubbles



As the surface of soap bubbles varies in thickness they will reflect light in a number of ways giving an iridescent image which changes and will eventually go monochrome just before the bubble collapses.

Equipment used

This is a bit more complex a set up than some of my other projects but there are ways of making these pictures on a shoestring and I will do a separate sheet about a DIY soft box.

- Camera (I used a 6D2 and also my 80D and 700D0 so it doesn't need to be too sophisticated with a remote shutter release)
- Macro Lens or Lens with Macro Facility I used both a 100mm Macro Lens and my 24-105mmF4 L Lens
- Tripod
- Speedlight capable of being operated off camera either via a remote trigger or flash extension cable
- Soft box (can be handmade), a separate sheet to make your own soft box (Blue Peter Style will be written)
- Soap Mix (more later)
- Small dish for bubble and a straw (I used an spare lens rear cap)
- Darkened room
- Lens cloth and towel in case of accidents!

Bubble Mix

The bubble mixture is the most critical part of the mixture as the mixture needs to ensure that the bubbles stay up for a reasonable time. The mixture should be kept cool for longer bubble life and the mixture listed will allow bubbles to be blown that will last 2-4 minutes before bursting.

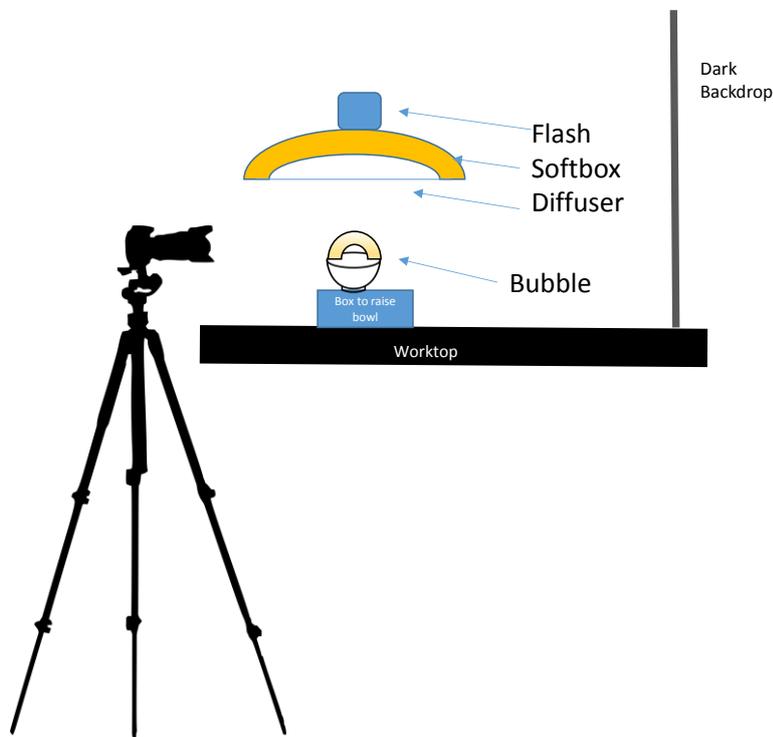
- 1 Tea Cup full of cold water
- 2 tablespoons of soap, I used both liquid hand soap and fairy liquid a light colour gives better results
- 1-2 table spoons of liquid Glycerine (start with 1 spoon and if bubbles burst too quickly then you can add a little bit more)

The mixture can be prepared beforehand and kept in a fridge to keep it cool.

Set up

I mounted the camera on a tripod shooting against a black background and positioned the top of the container so that it was just below $\frac{1}{4}$ of the view in the viewfinder. To get the focus with normal light I carefully blew a bubble and focussed on it. Autofocus should be left off and image stabiliser off as well.

Camera settings, I set up the camera in Manual to $\frac{1}{200}$ th of a second (this is the flash sync speed and ensures that the camera shutter is open at all times during the flash) F11 to allow for a suitable depth of field and 100 ISO White balance was Auto but I did also try Flash.. I then tried a couple of test shots to ensure that the image without flash was black with no stray light. A dark backdrop may be of use, a sketch of my arrangement is shown below, note I did this on my front room table not a studio. I placed the dish on a small box so that the worktop was effectively cropped out.



The flash was mounted with a diffuser firing into a soft box umbrellas with a diffuser and the flash power set to $\frac{1}{8}$ th normal power. A bubble was blown and the diffuser held so it was out of shot about 2-3 inches (50-75 mm) above the top of the bubble. If the image is too bright you can adjust the flash power, this shows up normally as a white area at the top of the bubble.

When the bubble first inflates the iridescent colours will form streaks and gradually form coloured bands. Then as the bubble gets thinner it will go monochrome and then holes will appear just microseconds before the bubble bursts.

How to blow the bubbles

This is the fun part but you may not want a young over enthusiastic studio helper as you want one large bubble not lots of bubbles in the air.

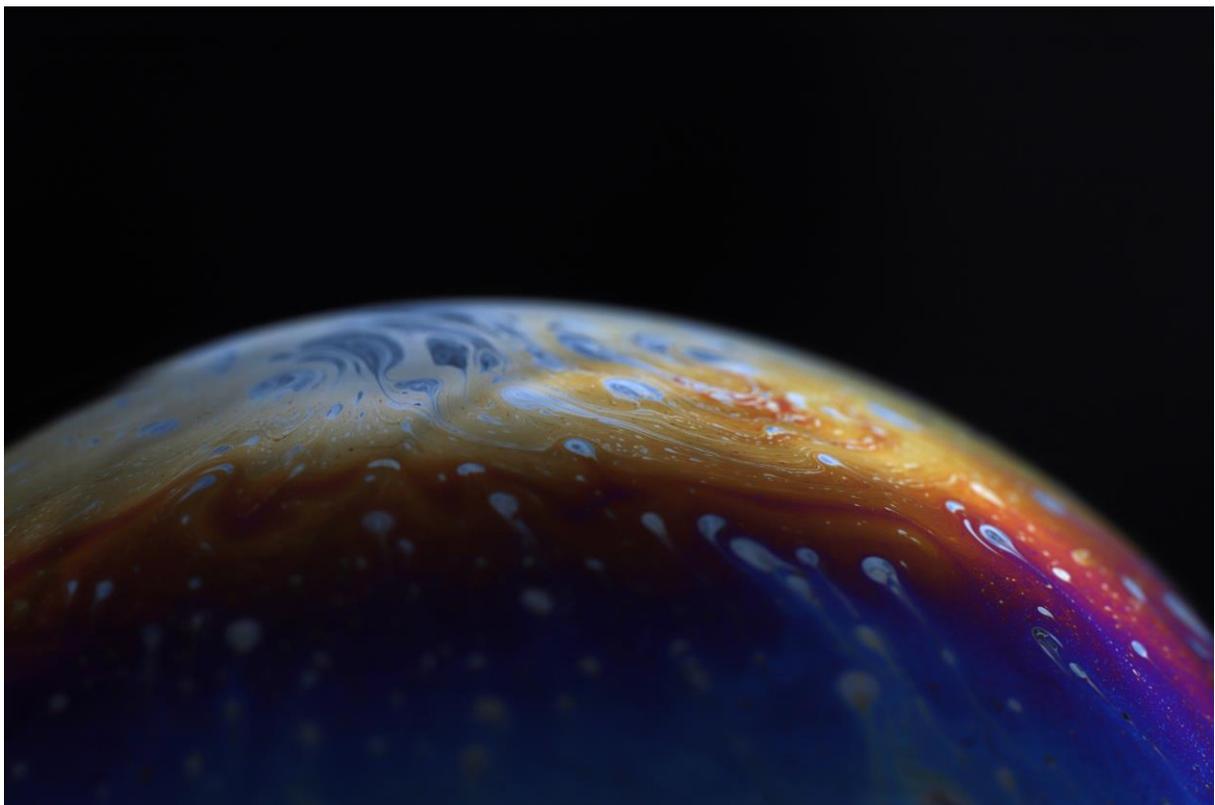
Hold the straw at an angle so it is just submerged then slowly blow a bubble once one has formed gently raise the straw above the mixture and keep blowing air into the bubble until it reaches the size you want. Carefully withdraw the straw and the bubble will remain intact.

Useful hint a straw with a flexible neck is handy for 2 reasons

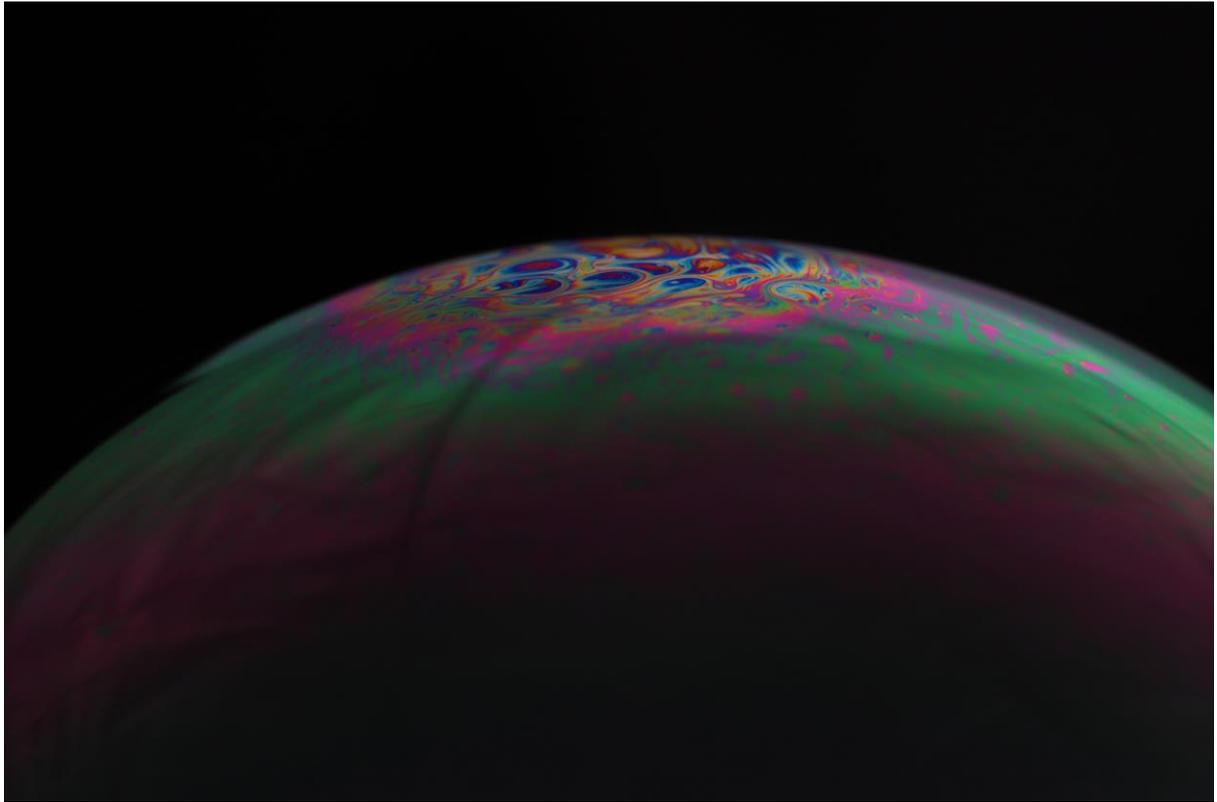
- 1) It makes it easier to carefully raise the straw once you have started the bubble*
- 2) You don't forget which end has been in the soap mixture.*

Examples of Images

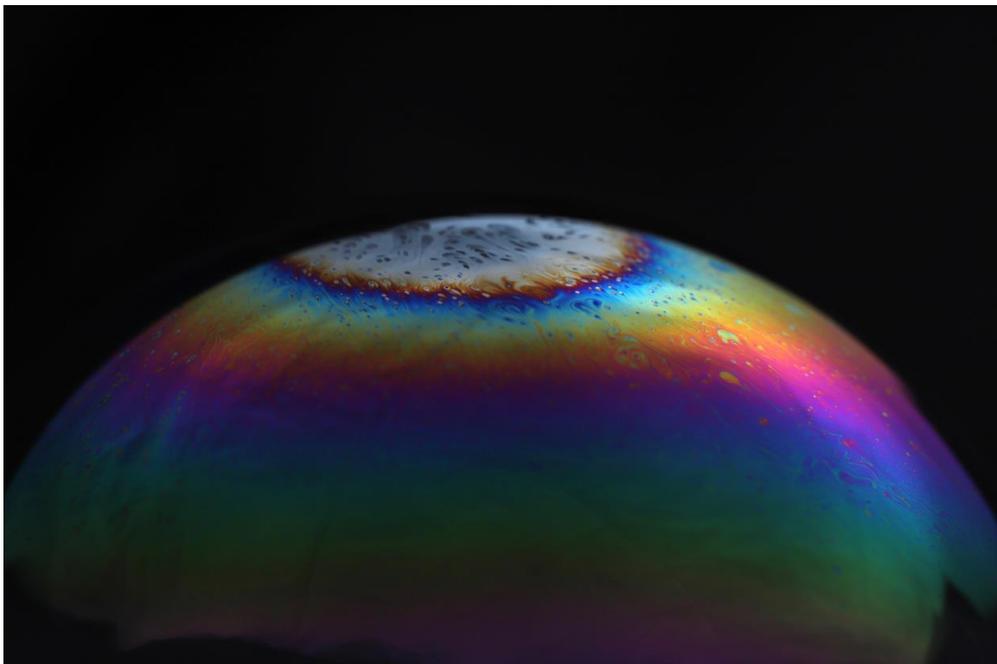
These were from my first ever try of soap bubble photography.



Fresh bubble showing swirls



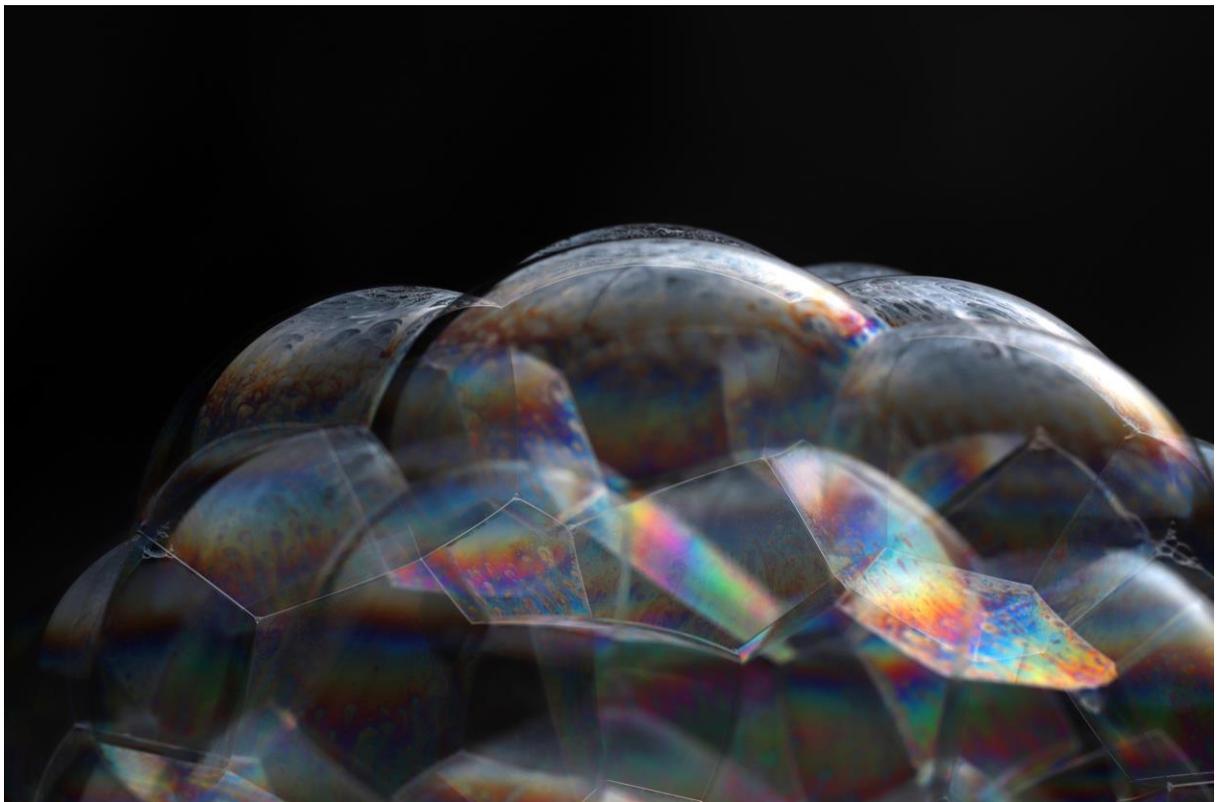
More iridescent swirls



Bubble showing bands, soft box was a little too bright / close to bubble



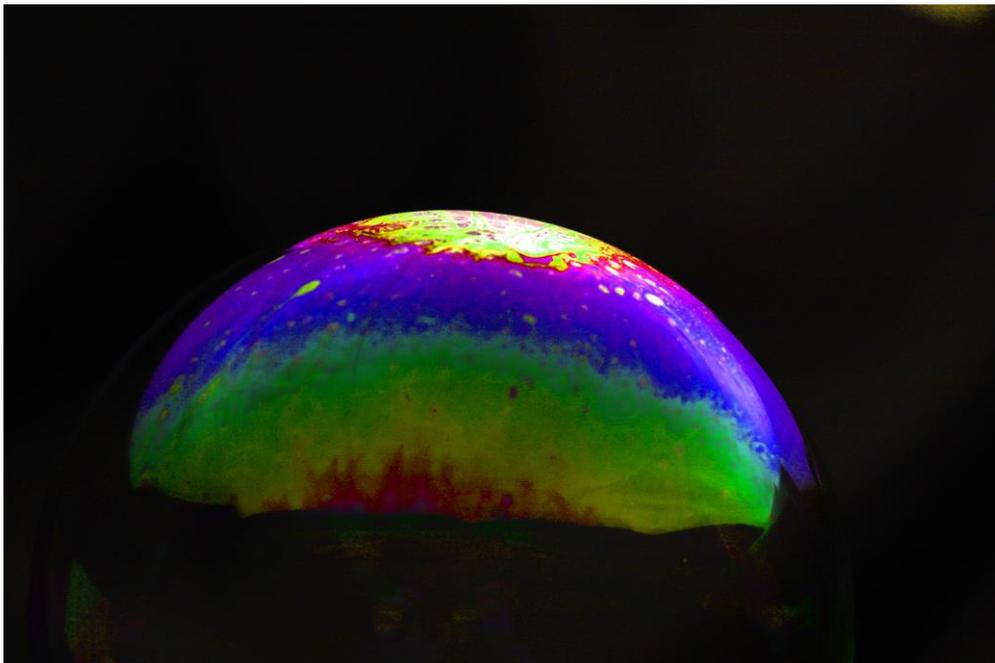
Bubble going monochromatic about to burst the black dots are holes in the surface



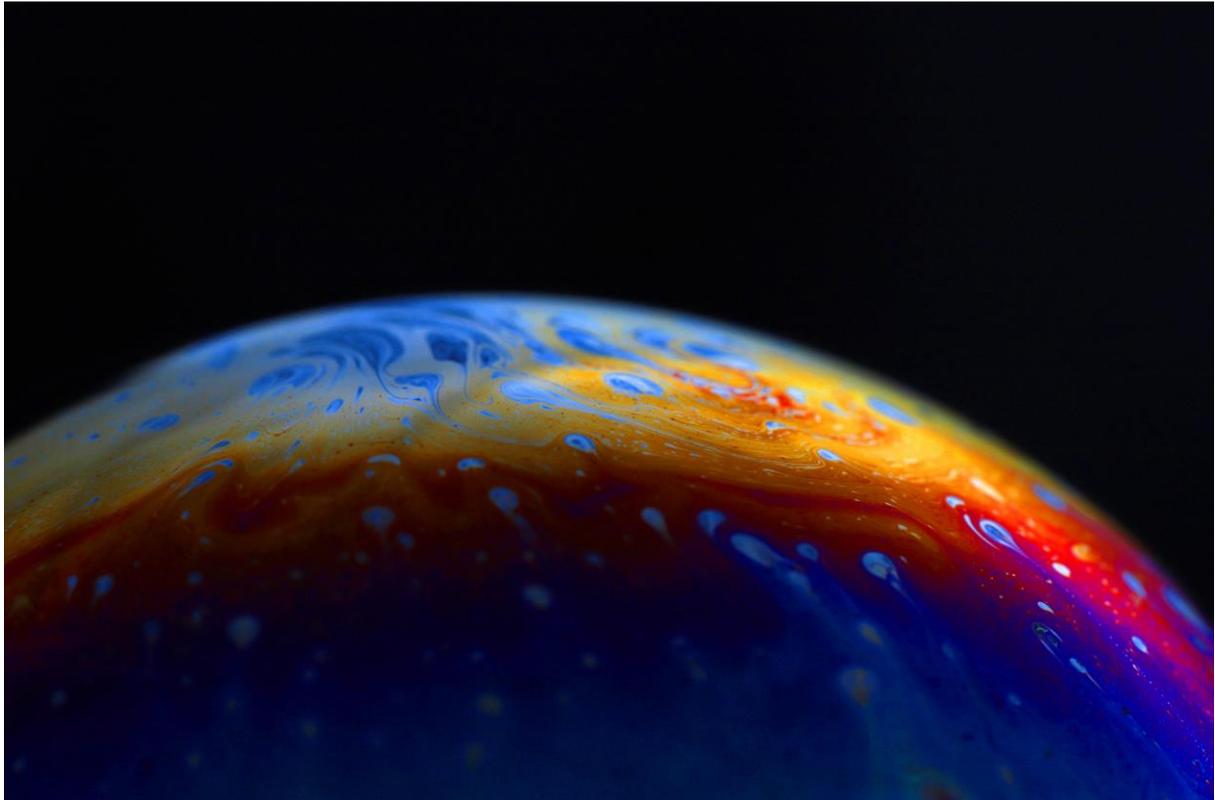
Over Enthusiastic Bubble Blowing but still showing beauty

Post Production

The majority of the images are the JPG's straight from the camera and yes I did get failures and some images I wanted to enhance the colours, so all I did was open the image in Photoshop Elements and purely played with the saturation controls, no real Photoshop magic as all.



Playing with Saturation



Bubble or Alien Planet?

Hopefully this might inspire you to have a go at Bubble Photography, if you would like some hints please give me a call.

Robert

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