

## Isaac Newton. Laboratory Notebook from 1678 to 1696.

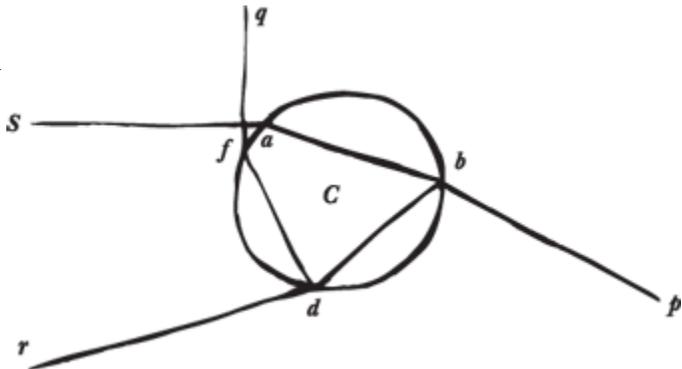
### Section 49-51: Of fire, flame, the heate & ebullition of the heart & Divers mixed liquors & Respiration

49 A single superficies of Glasse reflects many rays whither they passe out of glasse into aire or out of aire into Glasse & yet two surfaces of Glasse when contiguous (by the 27<sup>th</sup> 28<sup>th</sup> & 29<sup>th</sup> Experiment) reflect the Rays noe more then if the glasses had beene one entire peice without such a superficies betwixt them.

48 As white was made by a mixture of all sorts of colours (in the 46<sup>th</sup> & 47<sup>th</sup> Experiment) Greene is made by a mixture of blew & yellow, purple by a mixture of red & yellow, etc

50 Thin Flakes of Muscovy Glasse, Bubbles which children make of sope & water, the thin skum of molten leade, of cooling iron, water wiped very thin on glasse, glasse blowne very thin, etc represent the Phaenomena of the coloured circles in the 30<sup>th</sup> and 31<sup>st</sup> Experiments etc. To which may bee referred coloured motes in the Sun or in liquors, or pouders, or sollid bodys; the slender coloured threds of some cobwebbs, of silke wormes, & of flax finely dressed (though the flax in spinning looseth its glosse, because the flat thredds cleave together againe into two greata thicknesse see Experiment 49).

51 If the Sun S shine upon a large glasse Globe abd filled with water And if you hold your eye very neare to the globe, the rays bp will appeare coloured redd & the farther you hold your eye from the glasse the lesse they appeares coloured, untill the colour vanish. But the Rays rd & fq appeare coloured at what distance so ever your eye bee placed from the Globe. The like you may observe by letting the colours fall on a peice of paper.



Source: *The Chymistry of Isaac Newton*, <http://webapp1.dlib.indiana.edu/newton/>