

# Light Force of Friction and the Ether as Teflon

Paul T E Cusack\*, Saint John

Department of Physics, McGill University, Quebec, Canada

## Image Article

**Received:** 24-May-2021, Manuscript No. JPAP-21-32140; **Editor assigned:** 27-May-2021, Pre QC No. JPAP-21-32140(PQ); **Reviewed:** 10-Jun-2021, QC No. JPAP-21-32140; **Revised:** 02-Jan-2023, Manuscript No. JPAP-21-32140; **Published:** 30-Jan-2023, **DOI:** 10.4172/2320-2459.11.1.001

**\*For Correspondence:** Paul T E Cusack, Department of Physics, McGill University, Quebec, Canada  
**E-mail:** St-michael@hotmail.com

**Citation:** Cusack PTE, et al. Light Force of Friction and the Ether as Teflon. Res Rev J Pure Appl Phys. 2023;11:001.

**Copyright:** © 2023 Cusack PTE, et al. This is an open-access article distributed under the terms of the Creative Commons Attribution License, which permits unrestricted use, distribution, and reproduction in any medium, provided the original author and source are credited.

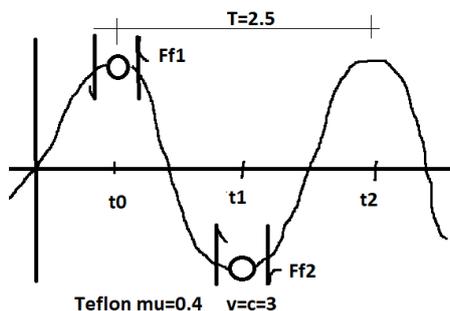
## ABOUT THE STUDY

In this paper, we show further evidence that the ether is Teflon. We show how light travels as a sign wave through the ether taking the coefficient of friction into account. The friction and wear characteristics of various molecular weight virgin Poly (Ether Ether) Ketones (PEEK) and of PEEK combines with Polytetrafluoroethylene (PTFE) and also the PEEK composites with small carbon fibres was studied below dry sliding conditions against hard steel on a pin-on-disc apparatus.

As characterised by the melt viscosity and similar crystallinities after heat treatment, the high molecular weight PEEK had a good wear resistance than low molecular weight PEEK [1]. The spherulite size and hardness of the PEEK play an most important role in both friction and wear performance. In this paper, we consider how light or electromagnetic radiation, travels through the ether. The ether was previously established as teflon [2]. It has a

mass of  $4/\pi$  and a coefficient of friction of 0.4 [3]. Light travels in the form of waves. We use these characteristics to calculate how light travels through the ether. Consider the following figure and connected equations (Figure 1).

Figure 1. This graph represents the coefficient of friction.



$$Ff1 = \mu N$$

$$\cos \theta = 0.4 N$$

$$\Sigma Ff = \int Ff1$$

$$= \int \cos \theta \text{ from } t_0 \text{ to } t_1$$

$$= \sin \theta$$

From  $t_0$ - $t_2$

$$Ff1 + (-Ff2) = 2 \sin \theta$$

$$2 \sin \theta = 0.4 N$$

$$\sin \theta = 0.2/N$$

$$\text{At } t=t_0, Ff = 0 = \cos 0 = 1$$

$$\sin 0 = 1 = 0.2 N$$

$$N = 5 \Rightarrow SE = SE'$$

$$u = \text{freq.} = 1/T$$

$$\text{Period } T = 2.5$$

$$\begin{aligned} E &= \hbar u \\ &= 6.626(1/2.5) \\ &= 2.65 \sim 2.666 = SF \end{aligned}$$

$$\begin{aligned} E &= \hbar N \\ &= 6.626(5) \\ &= 33.13 \end{aligned}$$

$$\begin{aligned} E &= 1/t \\ t &= 1/33.13 = 3.01 \sim c = v \Rightarrow SE = SE' \end{aligned}$$

$$\begin{aligned} s &= Et \sin \theta \\ s &= Et (0.2N) \\ &= (33.13)(3.01)(0.2)(5) \\ &= 1 \end{aligned}$$

$$\bar{P} = Mv = \cos \theta = Ff1$$

$$M(3) = 0.4N$$

$$\begin{aligned} M &= 0.4(5)/3 \\ &= 6.67 \\ &= G \end{aligned}$$

$$F = G M_1 M_2 / R^2$$

$$F = G(G)(1/)/1^2$$

$$F = G^2 = 4.444$$

$$F = G^2 = 4.444 = 4/9 = 10\mu/c^2$$

$$\begin{aligned} v &= d/t \\ d &= vt \\ &= 3(3) \\ &= 9 \end{aligned}$$

$$E = F \times d \times t$$

$$8/3 = G^2 \times 9 \times t$$

$$t = 6.66 = G$$

$$t = KE = 1/2 Mv^2$$

$$6.67 = 1/2 (6.67) \times v^2$$

$$2 = v^2$$

$$v = \sqrt{2}$$

$$\text{Period } T = 1/\text{freq} = 2.5$$

$$\text{freq} = 1/t = v/d = \sqrt{2}/d = 1/2.5 = 0.4 = \mu$$

$$d = \sqrt{2}/0.4 = 3.53 = (1/\sqrt{2}) = (1/2)(1/\sqrt{2}) = Nv = Fv$$

$$Fv = d$$

$$F = d/v$$

$$F = t$$

$$t = E$$

$$F = t = E = 5$$

So we see familiar constants drop out of assuming that light travels through ether as a regular wave. It occurs when  $y=y'$  or  $t=3$ ;  $E=5$ .

### REFERENCES

1. Lu ZP, et al. On sliding friction and wear of PEEK and its composites. *Wear*. 1995;624-631.
2. Werner P, et al. Tribological behaviour of carbon-nanofibre-reinforced poly (ether ether ketone). *Wear*. 2004;9:1006-1014.
3. Samyn P, et al. Tribological properties of PTFE-filled thermoplastic polyimide at high load, velocity and temperature. *Polymer Comp*. 2009;30:1631-1646.