

To

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Subject: Request for corrigendum /correction/rectification in remarks of Nobel Laureate, Sir John Cockcroft in Nobel Lecture (11 December 1951). Link
http://www.nobelprize.org/nobel_prizes/physics/laureates/1951/cockcroft-lecture.pdf

Experiments on the interaction of high-speed nucleons with atomic nuclei : 1932
Nobel Lecture,

This experiment was conducted without hype of $E=mc^2$.

Date : December 11, 1951

Nobel Laureate : J OHN D. C OCKCROFT

Mistake in Nobel Lecture : Sir John Cockcroft stated Einstein $E=mc^2$ is confirmed in experiments with reasonable accuracy, in experiment of splitting of Li^7 by swift proton yielding alpha particles, But actually %age deviations in experiments are 16.594%, 2.491% and 9.678% at different times.

Respected Sir

Kindly note the followings

(i) There is a sheer mistake in Sir Cockcroft's Nobel Lecture December 11, 1951.

IT MUST BE CORRECETED; and additional data to be added.

(ii) The experiment was conducted in 1932 by Cockcroft and Walton and they split $7Li$ by swift proton and alpha particles were emitted.

(iii) In Nobel Lecture (11 December 1951) page 1711st para (copy attached , link also given as above) Cockcroft stated

"A little later Bainbridge re determined the mass of $7Li$ to be 7.0130. This changed the mass decrease to 0.0180 mass units, in very good agreement with the observed figure."

Thruth: There is not even remote agreement in this case, so percentage deviation is 16.594%, 2.491% and 9.678%. Thus some additional information or corrigendum may please be added to Nobel Lecture so that information is complete.

(vi) This request is being done on the basis of published paper

Did the Cockcroft-Walton experiment really confirm Einstein's $\Delta E=\Delta mc^2$ first of all ?

published in Journal Physics Essays www.physicsessays.com

abstracted and indexed in

“Articles in this Journal are indexed and abstracted in Current Contents/Physical, Chemical, and Earth Sciences, ISI Alerting Service, Science Citation Index-Expanded (SCIE) including the Web of Science, as well as in SciVerse Scopus. The Journal is also included in the Research Alert Service, Chemical Abstract Service, and SCISEARCH online database.”

So the journal Physics Essays is international recognized.

The link to paper in the journal is

DOI: <http://dx.doi.org/10.4006/0836-1398-27.1.139>

The copy of paper and Nobel Lecture 11 December 2014 is attached . The table leading to deviations is shown below (source above paper).

“Table 1. Variations in values of energy ($\Delta E = \Delta mc^2$) in disintegration of Lithium by fast protons in the Cockcroft & Walton experiment of 1932.

Sr.No.	Scientist	Mass (u)	Mass Difference (u)	Energy Theoretical (MeV)	Energy Observed (MeV)	percentage difference
1	Cockcroft & Walton	Li = 7.0104 $^1\text{H} = 1.0072$ $2\alpha = 8.0022$	0.0154	14.3449	17.2	16.594
2	Cockcroft & Walton (Bainbridge)	Li = 7.0130 $^1\text{H} = 1.0072$ $2\alpha = 8.0022$	0.018	16.76682	17.2	2.491
3	Latest values of mass	Li = 7.01600455 $^1\text{H} = 1.0072764$ $2\alpha = 8.0030122$	0.0202687	18.88	17.2	9.768

I have raised this issue in my book “ Beyond Einstein and $E=mc^2$ “

(v) Nobel Lecture is the most celebrated scientific document (but to err is human), on the basis of current estimates the deviation is 9.768% , it is never a close to claim in anyway .

The mistake must be improved and some type of corrigendum be attached with Nobel Lecture December 11, 1951 or needful be done otherwise.

Here are links for

(i) Nobel Lecture (11December 1951) of Sir John Cockcroft of University of Cambridge

http://www.nobelprize.org/nobel_prizes/physics/laureates/1951/cockcroft-lecture.pdf

(ii) Ajay Sharma's paper pointing mistakes/inconsistencies in above Nobel Lecture

DOI: <http://dx.doi.org/10.4006/0836-1398-27.1.139>

Expected outcome : 1932 Experiment of splitting of Lithium with swift proton need to be re-conducted. Then conclusions can be drawn about confirmation of $E=mc^2$

I hope my request will be sympathetically considered. An early reply solicited.

Science has beginning but no end.

Yours faithfully

Ajay Sharma

Assistant Director

Author of books

Beyond Newton and Archimedes

Beyond Einstein and $E=mc^2$

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