

**THE LIFE & TIMES of
the NEUTRON**

Universal Energy



By

Keith Dixon-Roche

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Contents

Preface	7	
1	Introduction	9
1.1	What can we do with this knowledge?	11
1.2	How This Book Is Organised	12
2	The Narrative	13
2.1	Energy	15
2.2	Proton-Electron Pair	17
2.3	The Atom	19
2.3.1	Nucleus	21
2.3.2	The State of Matter	22
2.4	The Neutron	25
2.4.1	What are neutrons?	26
2.4.2	What is their purpose?	28
2.4.3	How Is A Neutron Created?	29
2.4.4	What is half-life?	30
2.4.5	Neutronic Energy	31
2.4.6	Neutron Properties	32
2.5	Isotope	33
2.6	Ion	35
2.7	Radioactive Fission	37
2.8	The Neutron Energy-Cell	39
3	Calculation Procedures	41
3.1	Energy	43
3.1.1	Potential Energy	44
3.1.2	Kinetic Energy	45
3.1.3	Electro-Magnetic Energy	46
3.2	Proton-Electron Pair	47
3.2.1	Input Data	48
3.2.2	Orbital Shape	49
3.2.3	Body Mass	50
3.2.4	Electron Performance	51
3.3	The Atom	53
3.3.1	Nucleus	54
3.3.2	The State of Matter	56
3.4	The Neutron	61
3.4.1	Unity Forces	62
3.4.2	Stored Energy	64

3.4.3	The Atom Bomb	65
3.4.4	Nuclear Power	66
4	Calculation Results	67
4.1	Energy	69
4.2	Proton-Electron Pair	71
4.3	The Atom	73
4.4	The Neutron	75
5	The Physical Constants	77
5.1	Introduction	79
5.2	Symbols	81
5.3	Primary Constants	85
5.4	General Physical Constants	87
5.5	Universal Heat & Charge Capacities	89
5.5.1	Microstates	90
5.6	Specific Heat Capacities (particles)	91
5.7	Specific Charge Capacities (particles)	93
5.8	Electricity	95
6	The Laws of Thermodynamics	97
7	Things You Can Do	99

Appendices 101

A1	General	103
A2	References	105
A3	Glossary	107
A4	Symbols	109
A5	Useful Formulas	111
A6	The Heroes	113

Preface

Despite being puzzled by the apparent insignificance of the neutron, I have always been convinced that the more useless a natural feature appears, the more important it will probably turn out to be (e.g. planetary spin) and I long ago realised that nature does not waste energy on futility or half-measures!

I discovered how the atom *really* works during my work on Newton's *Principia* (PHILOSOPHIÆ NATURALIS PRINCIPIA MATHEMATICA Revision IV), but the neutron remained an enigma to me. So, I decided to conclude my atomic studies with an investigation into this particle.

It is now clear [to me] that neutrons are simply proton-electron pairs united through high-temperature (heat energy). More important though, is the fact that at the time of its creation, a neutron stores its extant energy, which is considerable given its size and extent.

Realising that this amount of energy is more than enough to account for the universal *Big Bang*, I also realised that, exploited properly, it could be a safe source of clean, free energy for the entire human race for as long as it survives. What's more, it is based upon fission (not fusion) that need not be the dirty process we use today.

I therefore concluded that the neutron should be credited with a great deal more importance than it is currently granted.

So here we are; the *conclusion* of my atomic studies, which centres on "*the life and times of the neutron*", and for those that missed it, is a pun on its responsibility for atomic half-life.

The original purpose of this book was to raise awareness to the existence of an infinite (well nearly) source of clean, safe, free energy. In fact, the only such source in the universe, and it is everywhere. I have since concluded, however, that this was a pointless quest. Such a source of energy is not in the interests of the world's "*leaders*". Industrialists and politicians are making far too much money for themselves out of swapping one pollution for another and controlling all aspects of energy to want it made universally available. But, in case there is someone out there ...

Keith Dixon-Roche 2019

1 Introduction

I have always been convinced that somewhere there lies an undiscovered energy source that is cheap, clean, safe and “infinitely” abundant. My recent work on the atom provided the answer; the neutron.

A neutron is a proton-electron pair united through high temperature. It retains the energy the pair were generating at the time of their union and releases it when ejected from the atom.

The first thing to understand about neutrons is that they cannot exist outside an atom. Unlike the proton and the electron, you won't find any lying (or flying) around in your back yard.

Neutronic energy is released within atomic bombs and nuclear reactors, both of which exploit the critical mass of radioactive matter to release it. The difference between the two processes is:

*An atomic bomb releases this energy by achieving critical mass almost **instantaneously**; resulting in an uncontrolled explosion of the matter, breaking it apart and leaving a great deal of unexploded radioactive matter distributed over a large area.*

*A nuclear reactor releases the same energy but in a (relatively) controlled manner by achieving almost critical mass **slowly**; resulting in the release of electro-magnetic energy; heat.*

The problem with both these processes is that they use a pile-hammer to crack a nut. They are extremely difficult to control and both rely on the use of the critical mass of radioactive matter; making them dangerous and impractical. Moreover, their fallout is radioactive.

If on the other hand we understood what neutrons are; how they're made, and why & when they release their energy, we would be able to use them to our advantage, safely and practically. Moreover, we can use fission to extract their energy from *any* matter, just as occurs within stars.

Note, fusion is not a source of energy; it requires the input of energy to work.

The primary benefit of this form of energy is that its *fallout* is hydrogen and/or helium (proton-electron pairs). It is both free and clean, and there is an inexhaustible supply here on Earth.

We can acquire all the energy we need from neutrons within the earth's crust in *any* element or combination of elements available (rock or even soil); they do not need to be radioactive because we need not rely on *critical mass* to release it.

Whilst batteries, solar cells, wind turbine generators and power stations are, dirty, expensive, unreliable, wasteful and inefficient; neutron energy is clean, safe, reliable, eternal and free (it can be extracted from your garden). Moreover, it is massively efficient (>231,000,000%), once initiated it fuels itself.

There is enough neutron energy in one metre of the earth's [surface] crust to supply our energy needs for more than $1E+14$ years. Or alternatively; 1kg of iron, which holds 3.9 GW.hrs of neutron [heat] energy, is sufficient to run a car for 434 years, an average UK household for 327 years or a Jumbo Jet for 12 million kilometres.

Even if only 1% of this energy can be harnessed, it substantially outperforms all existing energy sources, but more importantly it is free and totally clean; it needs no mining.

Given that the human race is unlikely to survive beyond $1E+09$ years; we have an unlimited source of energy available to us; and everybody can access it for free. Or, if by some miracle we manage to survive longer than this, another metre of crust will provide a further $1E+14$ years; i.e. beyond the current universal period.

Because neutronic energy can be conclusively proven (refer to Chapter 3.1), the neutron as described in this publication must be genuine. Which also proves that $E=mc^2$ applies to neutronic orbits and ' R_n ' proves that these orbits *must* be circular.

Therefore, Newton's and Coulomb's orbital model must be correct and Einstein and Bohr must both have been incorrect.

Therefore, the energy available in neutrons is genuine and exploitable.

Unresolved issues are highlighted in the text with the superscript [?] in which '?' will be replaced with a number that can be found in Chapter 7

1.1 What can we do with this knowledge?

Given what we now know about neutron energy;

- 1) How it is created (orbits and spin-friction)
- 2) Where it is created (stars)
- 3) How it is transmitted (electro-magnetic energy)
- 4) Where it is stored (neutrons)

What can we do with it?

- 1) Manufacture energy cells of any capacity
- 2) Create a proton generator for less than the cost of medium sized battery
- 3) Recycle nuclear waste
- 4) Eliminate; batteries, solar panels, wind turbine generators, national power-stations, power transmission lines, etc.
- 5) Eliminate the need to refuel domestic vehicles
- 6) Eliminate the risk of fire in transportation accidents
- 7) Reduce the manufacture of heavy metals by more than 99%
- 8) Power your house for life from your garden
- 9) Eliminate dangerous by-products (neutron energy → hydrogen/helium)

1.2 How This Book Is Organised

This book comprises 8 sections, the first four of which provide similar information but in a different form:

2 Narrative

A written description that gives a general overview of the various discoveries made in this book. It is devoid of formulas and mathematical complexity with a view to providing a '*light-read*'!

3 Calculation Procedures

A compilation of the mathematical formulas supporting the narrative, including how to use them. This section has been written to simplify their use.

4 Calculation Results

A collection of [mostly] tabulated calculation results for selected examples using the formulas provided in section 3 (above).

5 Physical Constants

All the physical constants (including electrical properties such as Volts, Amps, Henries, Farads, Ohms, etc.) are provided (to ≤ 15 decimal places) in terms of the same four basic units; length, time, mass and charge and two ratios: m_e , e , R_n , t_n & ξ_v , ξ_m

6 Support

The laws of thermodynamics.

7 Things You Can Do!

A list of unresolved issues.

Appendices

References, symbols, glossary, etc. used throughout this book.