# The Charge of the Light Brigade

Reprinted with Permission

by Alfred, Lord Tennyson

#### 1.

Half a league, half a league, Half a league onward, All in the valley of Death Rode the six hundred. "Forward, the Light Brigade! "Charge for the guns!" he said: Into the valley of Death Rode the six hundred.

"Forward, the Light Brigade!" Was there a man dismay'd? Not tho' the soldier knew Someone had blunder'd: Theirs not to make reply, Theirs not to reason why, Theirs but to do and die: Into the valley of Death Rode the six hundred.

### 3.

Cannon to right of them, Cannon to left of them. Cannon in front of them Volley'd and thunder'd; Storm'd at with shot and shell, Boldly they rode and well, Into the jaws of Death, Into the mouth of Hell Rode the six hundred.

#### 4.

Flash'd all their sabers bare, Flash'd as they turned in air, Sabring the gunners there, Charging an army, while All the world wonder'd: Plunged in the battery-smoke Right thro' the line they broke; Cossack and Russian Reel'd from the saber-stroke Shatter'd and sunder'd. Then they rode back, but not Not the six hundred.

### 5.

Cannon to right of them, Cannon to left of them, Cannon behind them Volley'd and thunder'd; Storm'd at with shot and shell, While horse and hero fell. They that had fought so well Came thro' the jaws of Death Back from the mouth of Hell, All that was left of them, Left of six hundred.

When can their glory fade? O the wild charge they made! All the world wonder'd. Honor the charge they made, Honor the Light Brigade, Noble six hundred.

## The Charge of the Bucket Brigade

### by Alfred, Lord Tennyson (Sam Seifter)\*

1.

Half a cell, half a cell, Half a cell onward, All in the valley of Hemes, Rode the substratum. "Forward, the Bucket Brigade! "Charge to Oxygen!" he said: Into the valley of Hemes Rode the substratum.

"Forward, the Bucket Brigade!" Was there a couple unmade? Not that electrons sensed Or protons betrayed them: Theirs not to make delay, Theirs not to stop or stray, Theirs but to make relay, Into the valley of Hemes Rode the substratum.

3.

Ferrous to right of them Ferric to left of them, Oxygen in front of them Volley'd and bounc'd at 'em: Held in orbital shell, Boldly they rode and well, Into the resp'rtory chain Into the outermost shell Rode the substratum.

Pass'd all electrons there, Pass'd as they turn'd toward air, Leaving the protons bare, Charging the membrane, while Mitchell stared at 'em: Strong like a battery charge, Right thro' the chain they barged, Q10 or Flavin Peel'd as its neighbor surged, Redoxed its atom, They could turn back, but not, Not the substratum.

5.

Ferrous to right of them, Ferric to left of them, Flavin behind them, Volley'd and bounc'd at 'em; Held in orbital shell, While E rose and fell. They that had passed so well Thro' the respiring chain, Into the outermost shell, All that was left of them, Left of substratum.

When can their glory fade? O the wild charge they made! And Mitchell's new datum Honors the charge they made, Honors the Bucket Brigade, Nobel substratum.

<sup>\*</sup> This poem has been published posthumously to honor the memory of Dr. Sam Seifter, the founder of The Einstein Journal of Biology and Medicine.