

On Uniformity of International Usage

INTERNATIONAL communication and cooperation in science continue to grow in importance. The American Institute of Physics (AIP) is happy to cooperate in the efforts of the International Union of Pure and Applied Physics (IUPAP) to promote uniformity in the use of symbols for various physical quantities and concepts, in the names and definitions of units in which physical quantities are measured, and in other matters of nomenclature. For this reason, we are presenting in this issue of *Physics Today* the material in the latest report (Document UIP 9; SUN 61-44) of the Commission on Symbols, Units and Nomenclature of IUPAP (SUN Commission), which was approved by the General Assembly of IUPAP at Ottawa in 1960.

Of course, these recommendations are not binding on any individual or journal and the *AIP Style Manual*

contains the practices which have been agreed upon for the journals of the AIP and its Member Societies. The AIP Publication Board urges consideration by authors of the symbols for physical quantities, etc., in the SUN report but has not specifically adopted any standard set of such symbols for our journals. The table below gives some abbreviated symbols for units as recently approved by the AIP Publication Board. The items listed represent either amendments to the published *Style Manual* or the few cases in which we continue to deviate from the SUN Commission recommendations.

The principal change in AIP style, made in the interests of international uniformity, is capitalization in the abbreviations for units based directly on proper names. In a few cases, such as sec instead of s for second, it was felt that it would be unwise to accept the SUN recommendations. Because of typographical difficulties,

SOME AIP ABBREVIATIONS FOR UNITS

Unit	Abbreviation	Unit	Abbreviation
ampere	A	lux	lx
milliampere	mA	oersted	Oe
angstrom	Å	ohm	Ω
coulomb	C	kilohm	kΩ
microcoulomb	μC	megohm	MΩ
curie	Ci	poise	P
day	day	second	sec
debye	D	microsecond	μsec
decibel	dB	nanosecond	nsec
dyne	dyn	volt	V
electron volt	eV	watt	W
farad	F	year	yr
picofarad (=10 ⁻¹² F)	pF	biot	Bi
gauss	G	candela	cd
hertz	Hz	fermi	F
kilogauss	kG	franklin	Fr
henry	H	gilbert	Gi
hour	h	maxwell	Mx
joule	J	neper	Np
kilojoule	kJ	newton	N
kilowatt-hour	kWh	nit	nt
liter	liter	tesla (= weber/m ²)	T
lumen	lm	weber	Wb

we will continue to put the atomic mass number in the right superscript position, e.g., ${}^7\text{N}^{14}$. While adopting the SUN table of prefixes to represent the various powers of ten, we accept either G or B as an abbreviation for 10^9 .

The issue of whether to say kilocycle when we mean kilocycle per second (with abbreviations kc and kc/sec) is unresolved. Where temperature intervals, rather than

temperatures on a scale, are meant, the use of $^{\circ}\text{C}$, $^{\circ}\text{F}$, $^{\circ}\text{K}$ or deg C, deg F, deg K is acceptable.

The author of this note is the US member of the SUN Commission and is the chairman of the NAS-NRC Committee on Symbols, Units and Nomenclature. He will welcome recommendations from physicists for further progress toward standardization in these areas.

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SYMBOLS UNITS and NOMENCLATURE IN PHYSICS

INTRODUCTION

The recommendations in this document, composed by the Commission for Symbols, Units and Nomenclature (SUN Commission) of the International Union of Pure and Applied Physics (IUPAP), have been approved by the successive General Assemblies of the IUPAP, held in 1948, 1951, 1954, 1957 and 1960.

This document replaces the documents: SUN 49-1, SUN 53-1, UIP 6 (1955) and SUN 57-9, in which the previous recommendations of the SUN Commission were presented.

The recommendations contained in this document are in general in agreement with recommendations of the following international organizations:

1. International Organization for Standardization, Technical Committee ISO/TC 12;
2. General Conference on Weights and Measures (1948, 1954, 1960);
3. International Union of Pure and Applied Chemistry;
4. International Electrotechnical Commission, Technical Committees IEC/TC 24, 25;
5. International Commission on Illumination.

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