CAN WE IDENTIFY PRE-NOVAE?

Virginia Trimble

Astronomy Program, University of Maryland
College Park, MD 20742

and

Department of Physics, University of California
Irvine, CA 92717

TABLE I

OBSERVED AND CALCULATED† PROPERTIES OF CATACLYSMIC BINARIES

SYSTEM TYPE	NUMBER KNOWN [EXAMPLES]	STARS	OUTBURST AMPLITUDE	OUTBURST DURATION	TIME BETWEEN OURBURSTS	GAS EXPELLED[1]	FEATURES SEEN IN SPECTRUM	CAUSE OF MASS TRANSFER[2]	ENERGY SOURCES[3] OUTBURST	QUIESCENT
Classical Novae	c.200 [DQ Her]	MS+WD	9-14^m	months	(10^4-10^5yr)	Yes	disc, stream	RLO	N	G
Recurrent Novae	5 [T Cor Bor]	giant+WD	7-9^m	months	10-100 yr	Yes	disc	RLO	N	G
Dwarf Novae	c.300 [SS Cyg,U Gem]	MS+WD	2-6^m	days	10^d - 30yr	No	disc, stream, hot spot	RLO	G	G
Nova-Like Variables	dozens [UX UMa]	MS+WD	irregular variability	—	----	No	disc and/or stream, hot spot	RLO	-	G
Polars	4 [AM Her]	MS+WD	irregular variability	—	----	No	strong magnetic field, stream etc.	RLO	-	G
V471 Tauri Stars	2-3 [V471 Tau]	MS+WD	----	--	----	No	----	SW	-	-
Symbiotic Stars	dozens [Z And]	giant+WD	irregular variability	—	----	No	hot gas	SW	-	G
not seen	--	MS+WD	(9-14^m)	--	(very long)	(Yes)	----	SW	N	G
not seen	--	MS+WD	(tiny)	--	----	(No)	----	SW	G	G
not seen	--	giant+WD	(7-9^m)	(months)	(very long)	(Yes)	----	SW	N	G

[1] From system.
[2] RLO = Roche lobe overflow; SW = stellar wind
[3] In addition to ordinary light from star surfaces; N = nuclear; G = gravitational
† Calculated properties are those in the last three columns and those enclosed in parentheses.

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