$\tau(n \to \nu\gamma)$ τ_{43}

LIMIT (10^{30} years)	PARTICLE	CL%	EVTS	BKGD EST	DOCUMENT ID		TECN
>24	**n**	**90**	**10**	**6.86**	BERGER	91B	FREJ
• • • We do not use the following data for averages, fits, limits, etc. • • •							
> 9	n	90	73	60	HAINES	86	IMB
>11	n	90	28	19	PARK	85	IMB

$\tau(p \to e^+\gamma\gamma)$ τ_{44}

LIMIT (10^{30} years)	PARTICLE	CL%	EVTS	BKGD EST	DOCUMENT ID		TECN
>100	**p**	**90**	**1**	**0.8**	BERGER	91	FREJ

$\tau(p \to e^+e^+e^-)$ τ_{45}

LIMIT (10^{30} years)	PARTICLE	CL%	EVTS	BKGD EST	DOCUMENT ID		TECN
>510	**p**	**90**	**0**	**0.3**	HAINES	86	IMB
• • • We do not use the following data for averages, fits, limits, etc. • • •							
>147	p	90	0	0.1	BERGER	91	FREJ
> 89	p (free)	90	0	0.5	BLEWITT	85	IMB
>510	p	90	0	0.7	BLEWITT	85	IMB

$\tau(p \to e^+\mu^+\mu^-)$ τ_{46}

LIMIT (10^{30} years)	PARTICLE	CL%	EVTS	BKGD EST	DOCUMENT ID		TECN
>81	**p**	**90**	**0**	**0.16**	BERGER	91	FREJ
• • • We do not use the following data for averages, fits, limits, etc. • • •							
> 5.0	p	90	0	0.7	PHILLIPS	89	HPW

$\tau(p \to e^+\nu\nu)$ τ_{47}

LIMIT (10^{30} years)	PARTICLE	CL%	EVTS	BKGD EST	DOCUMENT ID		TECN
>11	**p**	**90**	**11**	**6.08**	BERGER	91B	FREJ

$\tau(n \to e^+e^-\nu)$ τ_{48}

LIMIT (10^{30} years)	PARTICLE	CL%	EVTS	BKGD EST	DOCUMENT ID		TECN
>74	**n**	**90**	**0**	**< 0.1**	BERGER	91B	FREJ
• • • We do not use the following data for averages, fits, limits, etc. • • •							
>45	n	90	5	5	HAINES	86	IMB
>26	n	90	4	3	PARK	85	IMB

$\tau(n \to \mu^+e^-\nu)$ τ_{49}

LIMIT (10^{30} years)	PARTICLE	CL%	EVTS	BKGD EST	DOCUMENT ID		TECN
>47	**n**	**90**	**0**	**< 0.1**	BERGER	91B	FREJ

$\tau(n \to \mu^+\mu^-\nu)$ τ_{50}

LIMIT (10^{30} years)	PARTICLE	CL%	EVTS	BKGD EST	DOCUMENT ID		TECN
>42	**n**	**90**	**0**	**1.4**	BERGER	91B	FREJ
• • • We do not use the following data for averages, fits, limits, etc. • • •							
> 5.1	n	90	0	0.7	PHILLIPS	89	HPW
>16	n	90	14	7	HAINES	86	IMB
>19	n	90	4	7	PARK	85	IMB

$\tau(p \to \mu^+e^+e^-)$ τ_{51}

LIMIT (10^{30} years)	PARTICLE	CL%	EVTS	BKGD EST	DOCUMENT ID		TECN
>91	**p**	**90**	**0**	**≤ 0.1**	BERGER	91	FREJ

$\tau(p \to \mu^+\mu^+\mu^-)$ τ_{52}

LIMIT (10^{30} years)	PARTICLE	CL%	EVTS	BKGD EST	DOCUMENT ID		TECN
>190	**p**	**90**	**1**	**0.1**	HAINES	86	IMB
• • • We do not use the following data for averages, fits, limits, etc. • • •							
>119	p	90	0	0.2	BERGER	91	FREJ
> 10.5	p	90	0	0.7	PHILLIPS	89	HPW
> 44	p (free)	90	1	0.7	BLEWITT	85	IMB
>190	p	90	1	0.9	BLEWITT	85	IMB
> 2.1	p	90	1		[39] BATTISTONI	82	NUSX

[39] We have converted 1 possible event to 90% CL limit.

$\tau(p \to \mu^+\nu\nu)$ τ_{53}

LIMIT (10^{30} years)	PARTICLE	CL%	EVTS	BKGD EST	DOCUMENT ID		TECN
>21	**p**	**90**	**7**	**11.23**	BERGER	91B	FREJ

$\tau(p \to e^-\mu^+\mu^+)$ τ_{54}

LIMIT (10^{30} years)	PARTICLE	CL%	EVTS	BKGD EST	DOCUMENT ID		TECN
>6.0	**p**	**90**	**0**	**0.7**	PHILLIPS	89	HPW

$\tau(n \to 3\nu)$ τ_{55}

LIMIT (10^{30} years)	PARTICLE	CL%	EVTS	BKGD EST	DOCUMENT ID		TECN
>0.00049	**n**	**90**	**2**	**2**	[40] SUZUKI	93B	KAMI
• • • We do not use the following data for averages, fits, limits, etc. • • •							
>0.00003	n	90	11	6.1	[41] BERGER	91B	FREJ
>0.00012	n	90	7	11.2	[41] BERGER	91B	FREJ
>0.0005	n	90	0		LEARNED	79	RVUE

[40] The SUZUKI 93B limit applies to any of $\nu_e\nu_e\overline{\nu}_e$, $\nu_\mu\nu_\mu\overline{\nu}_\mu$, or $\nu_\tau\nu_\tau\overline{\nu}_\tau$.

[41] The first BERGER 91B limit is for $n \to \nu_e\nu_e\overline{\nu}_e$, the second is for $n \to \nu_\mu\nu_\mu\overline{\nu}_\mu$.

$\tau(N \to e^+ \text{anything})$ τ_{56}

LIMIT (10^{30} years)	PARTICLE	CL%	EVTS	BKGD EST	DOCUMENT ID		TECN
>0.6	**p, n**	**90**			[42] LEARNED	79	RVUE

[42] The electron may be primary or secondary.

$\tau(N \to \mu^+ \text{anything})$ τ_{57}

LIMIT (10^{30} years)	PARTICLE	CL%	EVTS	BKGD EST	DOCUMENT ID		TECN
>12	**p, n**	**90**	**2**		[43,44] CHERRY	81	HOME
• • • We do not use the following data for averages, fits, limits, etc. • • •							
> 1.8	p, n	90			[44] COWSIK	80	CNTR
> 6	p, n	90			[44] LEARNED	79	RVUE

[43] We have converted 2 possible events to 90% CL limit.

[44] The muon may be primary or secondary.

$\tau(N \to \nu \text{anything})$ τ_{58}

Anything = π, ρ, K, etc.

LIMIT (10^{30} years)	PARTICLE	CL%	EVTS	BKGD EST	DOCUMENT ID		TECN
• • • We do not use the following data for averages, fits, limits, etc. • • •							
>0.0002	p, n	90	0		LEARNED	79	RVUE

$\tau(N \to e^+\pi^0 \text{anything})$ τ_{59}

LIMIT (10^{30} years)	PARTICLE	CL%	EVTS	BKGD EST	DOCUMENT ID		TECN
>0.6	**p, n**	**90**	**0**		LEARNED	79	RVUE

$\tau(N \to 2 \text{ bodies}, \nu\text{-free})$ τ_{60}

LIMIT (10^{30} years)	PARTICLE	CL%	EVTS	BKGD EST	DOCUMENT ID		TECN
• • • We do not use the following data for averages, fits, limits, etc. • • •							
>1.3	p, n	90	0		ALEKSEEV	81	BAKS

$\tau(pp \to \pi^+\pi^+)$ τ_{61}

LIMIT (10^{30} years)	CL%	EVTS	BKGD EST	DOCUMENT ID		TECN	COMMENT
>0.7	**90**	**4**	**2.34**	BERGER	91B	FREJ	τ per iron nucleus

$\tau(pn \to \pi^+\pi^0)$ τ_{62}

LIMIT (10^{30} years)	CL%	EVTS	BKGD EST	DOCUMENT ID		TECN	COMMENT
>2.0	**90**	**0**	**0.31**	BERGER	91B	FREJ	τ per iron nucleus

$\tau(nn \to \pi^+\pi^-)$ τ_{63}

LIMIT (10^{30} years)	CL%	EVTS	BKGD EST	DOCUMENT ID		TECN	COMMENT
>0.7	**90**	**4**	**2.18**	BERGER	91B	FREJ	τ per iron nucleus

$\tau(nn \to \pi^0\pi^0)$ τ_{64}

LIMIT (10^{30} years)	CL%	EVTS	BKGD EST	DOCUMENT ID		TECN	COMMENT
>3.4	**90**	**0**	**0.78**	BERGER	91B	FREJ	τ per iron nucleus

$\tau(pp \to e^+e^+)$ τ_{65}

LIMIT (10^{30} years)	CL%	EVTS	BKGD EST	DOCUMENT ID		TECN	COMMENT
>5.8	**90**	**0**	**<0.1**	BERGER	91B	FREJ	τ per iron nucleus

$\tau(pp \to e^+\mu^+)$ τ_{66}

LIMIT (10^{30} years)	CL%	EVTS	BKGD EST	DOCUMENT ID		TECN	COMMENT
>3.6	**90**	**0**	**<0.1**	BERGER	91B	FREJ	τ per iron nucleus

$\tau(pp \to \mu^+\mu^+)$ τ_{67}

LIMIT (10^{30} years)	CL%	EVTS	BKGD EST	DOCUMENT ID		TECN	COMMENT
>1.7	**90**	**0**	**0.62**	BERGER	91B	FREJ	τ per iron nucleus

$\tau(pn \to e^+\overline{\nu})$ τ_{68}

LIMIT (10^{30} years)	CL%	EVTS	BKGD EST	DOCUMENT ID		TECN	COMMENT
>2.8	**90**	**5**	**9.67**	BERGER	91B	FREJ	τ per iron nucleus