

Summary of Thermal Charm Enhancement

	$m_c = 1.2 \text{ GeV}$	$m_c = 1.5 \text{ GeV}$	
P.G.	M.G.	P.G.	M.G.
$m=0 \text{ g}$	3.2	0.053	0.93
$m \neq 0 \text{ g}$	4.6	0.065	1.27
$m=0 \text{ g+q}$	3.7	0.014	1.07
$m \neq 0 \text{ g+q}$	4.9	0.016	1.38

$\text{P.G.} \equiv \text{parton gas}$ $T_0 = 550 \text{ MeV}$ $\tau_0 = 0.7 \text{ fm}$ for g and g+q
 $m_c = 1.2 \text{ GeV}$ 44 - 32% enhancement
 $m_c = 1.5 \text{ GeV}$ 36 - 29% enhancement

$\text{M.G.} \equiv \text{minijet gas}$

gluons only $T_0 = 445 \text{ MeV}$
 gluons + quarks $T_0 = 360 \text{ MeV}$
 $\tau_0 = 0.1 \text{ fm}$

parton gas yield $\sim \frac{1}{2}$ initial $c\bar{c}$ pair rate with $m_c = 1.2 \text{ GeV}$
 charm mass change reduces yield by factor of 3
 minijet gas yield negligible compared to initial rate
 short formation time causes reduction

results here somewhat larger than reported previously

- larger coupling before with no change
- previously $T_0 \sim 500 \text{ MeV}$ with shorter τ_0
- identical $gg \rightarrow c\bar{c} + q\bar{q} \rightarrow c\bar{c}$ rate